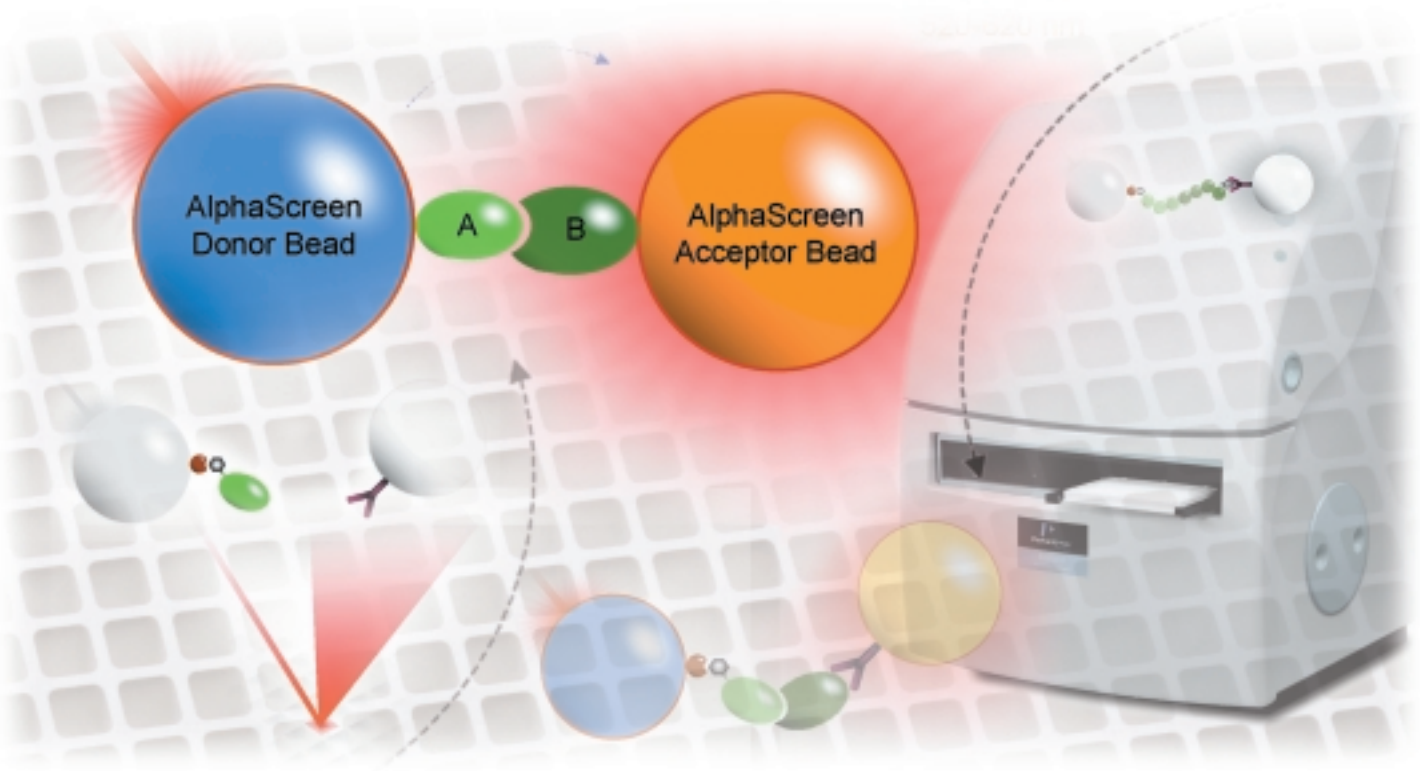
AlphaScreen



Sensitive homogeneous assay technology

PerkinElmer®
precisely.

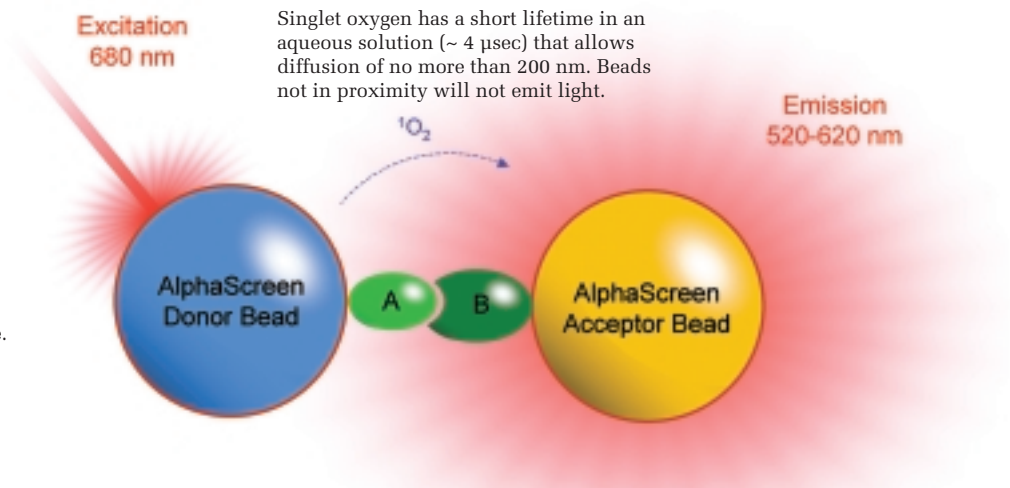
Principles of AlphaScreen

Amplified Luminescent Proximity Homogeneous Assay

AlphaScreen™ is an ideal tool that allows screening for a broad range of targets. The technology provides an easy and reliable means for determining the effect of compounds on biomolecular interactions and activities.

AlphaScreen relies on the use of "Donor" and "Acceptor" beads coated with a layer of hydrogel providing functional groups for bioconjugation. When a biological interaction between molecules brings the beads into proximity, a cascade of chemical reactions is initiated to produce a greatly amplified signal. Upon laser excitation, a photosensitizer in the "Donor" bead converts ambient oxygen to a more excited singlet state. The singlet state oxygen molecules diffuse across to react with a chemiluminescer in the Acceptor bead that further activates fluorophores contained within the same bead. The fluorophores subsequently emit light at 520–620 nm.

Illumination at a long wavelength ensures that few biological or assay substances will interfere.

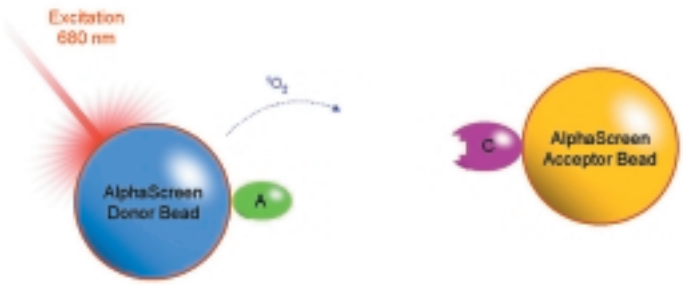


A high concentration of photosensitizer in each Donor bead generates up to 60,000 singlet oxygen molecules per second. This results in a very high signal amplification that contributes to detection sensitivity to the attomole level.

The Acceptor beads contain a thioxene derivative that reacts with the singlet oxygen molecule to generate a chemiluminescence at 370 nm. This energy is immediately transferred to fluorophores within the same bead, shifting the emission wavelength to 520–620 nm. A half-life decay reaction of 0.3 sec allows detection in a time-resolved mode.

In the absence of a specific biological interaction, the singlet state oxygen molecules produced by the Donor bead go undetected without the close proximity of the Acceptor bead.

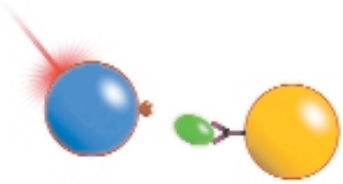
AlphaScreen has successfully been developed for enzyme assays, interaction assays (ligand/receptor, protein/protein, protein/DNA), immunoassays, and GPCR functional assays (cAMP, IP_3).



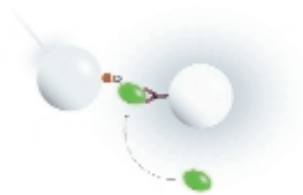
Versatility of AlphaScreen

AlphaScreen can readily be adapted to a range of assay formats:

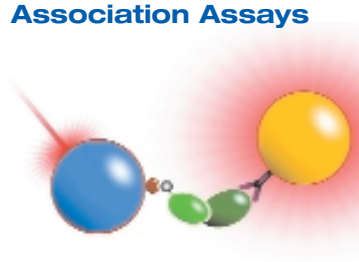
Competition Assays



e.g. cAMP assay. The production of cAMP by cells is detected by competing with exogenously added biotinylated cAMP that is recognized by an anti-cAMP antibody conjugated to the Acceptor bead. A ***decrease*** in signal is observed with an increase in intracellular cAMP produced. In the absence of intracellular cAMP a maximal signal is detected.

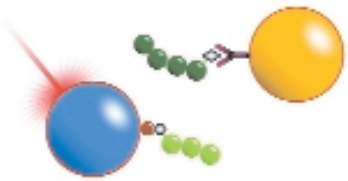


Association Assays

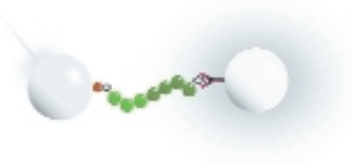


e.g. Protein-protein interaction assay. This assay requires one of the binding partners to be biotinylated. The other binding partner is either recognized directly by an antibody conjugated to the Acceptor bead or tagged with an epitope fusion tag that is recognized by an antibody conjugated to the Acceptor bead. An ***increase*** in signal is observed when an interaction between the two binding partners occurs. In the absence of binding no signal is detected.

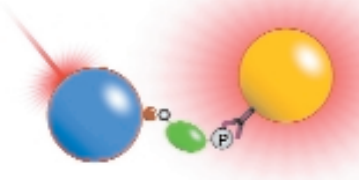
Dissociation Assays



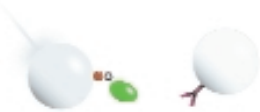
e.g. Protease assay. Enzymatic cleavage of a protein or a peptide can be detected with AlphaScreen. In the example, a biotinylated protein or peptide binds to the streptavidin Donor bead and is recognized by an antibody raised against a fusion tag on the same protein conjugated to the Acceptor bead. When the enzyme cleaves the protein or peptide, a ***decrease*** in signal is observed. In the absence of enzyme activity a maximal signal is detected.



Detection Assays

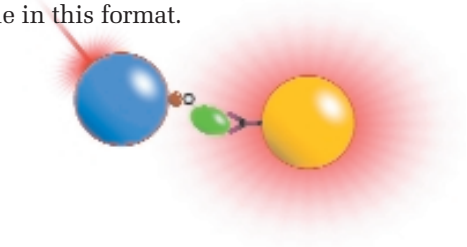


e.g. Kinase assay. The phosphorylation of a biotinylated protein or peptide can be detected with an antibody raised against the phosphorylated product conjugated to the Acceptor bead. Phosphorylation of a protein or peptide results in an ***increase*** in signal. In the absence of kinase activity no signal is detected.

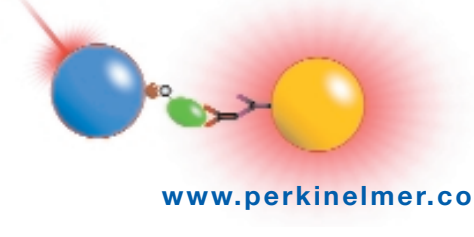


Direct and Indirect Detection Assays

Both direct and indirect approaches are possible with AlphaScreen. In a ***direct assay*** format, the antibody is conjugated directly onto the Acceptor bead. This provides the convenience of a ready-to-screen assay. A large variety of AlphaScreen assays are currently available in this format.

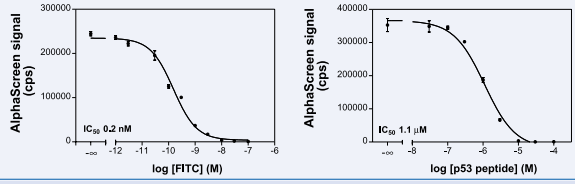
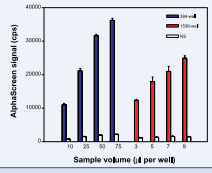
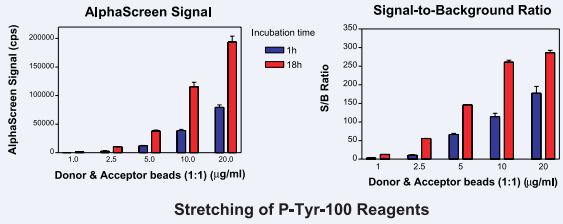


In an ***indirect assay*** a secondary antibody, or Protein A, is conjugated to the Acceptor bead. This method minimizes the use of primary antibody when it is either very expensive or difficult to obtain. The need for custom conjugation is further eliminated by this approach.



Features and Benefits

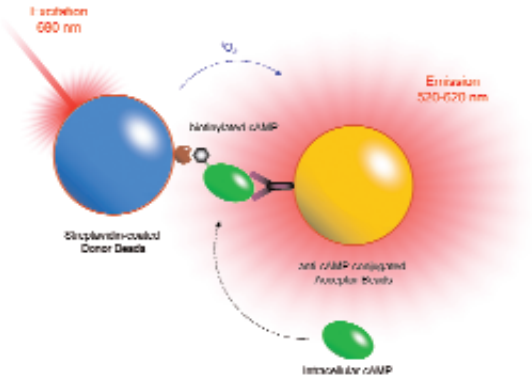
of AlphaScreen

Homogeneous	AlphaScreen is a ***"mix and measure"*** assay that does not require separation or wash steps.
Non-radioactive	AlphaScreen ***eliminates*** the need for ***special reagent handling and disposal*** requirements associated with the use of radioactivity.
Sensitive (Low background)	A long excitation wavelength of 680 nm combined with a shorter emission wavelength of 520–620 nm ***reduces interference*** from biological sample or assay components (inner filter effect) and ensures a very low background.
Sensitive (Amplified signal)	An amplified signal resulting from the 60,000 singlet oxygen molecules generated by each Donor bead allows ***detection down to the attomole level*** in many biological assays.
Broad range of affinities	AlphaScreen allows detection of interactions with affinities from the ***sub-nM to the µM range***. 
Proximity-based	AlphaScreen beads can be ***up to 200 nm*** apart. This distance allows the detection of very simple to very complex biological interactions.
Easy-to-use	AlphaScreen is available in a ***variety of ready-to-use detection kits*** for pre-validated assays using off-the-shelf reagents.
Automatable	AlphaScreen beads are very small (250 nm in diameter) and do not settle or clog pipette heads, thereby simplifying automated liquid handling. They are ***ideally suited for HTS.***
Miniaturizable	AlphaScreen ***adapts to 96-, 384- and 1536-well formats*** without changing reagent concentrations or compromising sensitivity. ***Perform AlphaScreen assays in a only few µL.*** TopSeal™ press-on adhesive film minimizes evaporation and can remain on during detection. 
Highly versatile	AlphaScreen offers the possibility to ***assay many biological interactions*** (enzymes, receptor-ligand interactions, low affinity interactions, second messenger levels, DNA, RNA, proteins, peptides, sugars and small molecules).
Cost-effective	AlphaScreen assays can ***save on reagents*** and be performed at ***cents per well.*** 
Easy access	***No licensing or access fees apply.*** AlphaScreen reagents and kits are readily available.
Complementary instrumentation	Read AlphaScreen on ***cutting edge instrumentation from your single source supplier***! Choose the EnVision™ Multilabel Plate Reader with AlphaScreen technology, the Fusion-Alpha™ Multilabel Reader, or the AlphaQuest® HTS Microplate Analyzer.

AlphaScreen GPCR

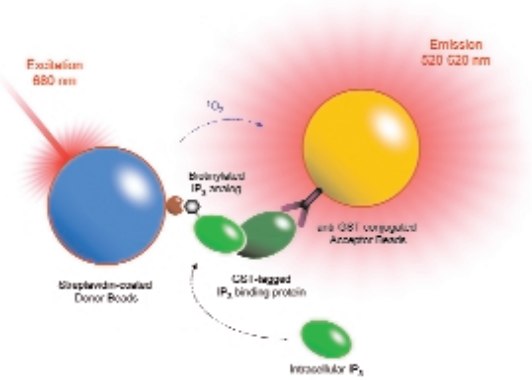
Functional Assay Kits

AlphaScreen GPCR functional assay kits provide an easy and sensitive means to ***measure intracellular cAMP*** changes following G_s and G_i-coupled receptor activation and ***intracellular concentrations of IP$_3$*** following G_q-coupled receptor activation.



cAMP Detection with AlphaScreen

Detection of cAMP is based on the competition between cellular cAMP and a biotinylated cAMP probe that is recognized by the streptavidin-Donor and anti-cAMP conjugated Acceptor beads. The beads are brought into proximity and a signal is detected. Increased intracellular concentrations of cAMP following G_s-coupled GPCR activation by an agonist displaces the biotinylated cAMP and leads to a proportional signal decrease. The effect of antagonists and reverse agonists can similarly be detected. G_i-coupled receptor activation can be detected after prestimulating cells with forskolin.



IP$_3$ Detection with AlphaScreen

Detection of IP_3 is based on the competition between cellular IP_3 and a biotinylated IP_3 analog (b-IP_3) binding to a GST-tagged IP_3 binding protein (GST-IP_3 bp). The b-IP_3 and GST-IP_3 bp are recognized by the streptavidin-Donor and anti-GST conjugated Acceptor beads, respectively. The beads are brought into proximity and a signal is detected. Increased intracellular concentrations of IP_3 following GPCR activation by an agonist displaces the b-IP_3 and leads to a proportional signal decrease.

AlphaScreen Literature

www.perkinelmer.com/alphascreen

Comparison of cAMP Assay Technologies for High Throughput Screening. SBS 8th Annual Conference. (2002).	Scientific Poster
New and Highly Sensitive AlphaScreen cAMP Assay to Measure Femtomol cAMP Variations in Cell and Membrane based assays. SBS 9th Annual Conference. (2003).	Scientific Poster

Ordering Information

Note that the number of cAMP assay points in cAMP assay kit is based on a 25 µL reaction volume.
For IP_3 the number of assay points is based on a 50 µL reaction volume and the final bead concentration of 10 µg/mL.

	Quantity	Part No.
cAMP Assay Kit	1,000 pts	6760625D
	10,000 pts	6760625M
	50,000 pts	6760625R
IP_3 Assay Supplement*	500 pts	6760621C
	10,000 pts	6760621M

	Quantity	Part No.
cAMP-biotin Supplement**	10,000 pts	6760301M
	50,000 pts	6760301R

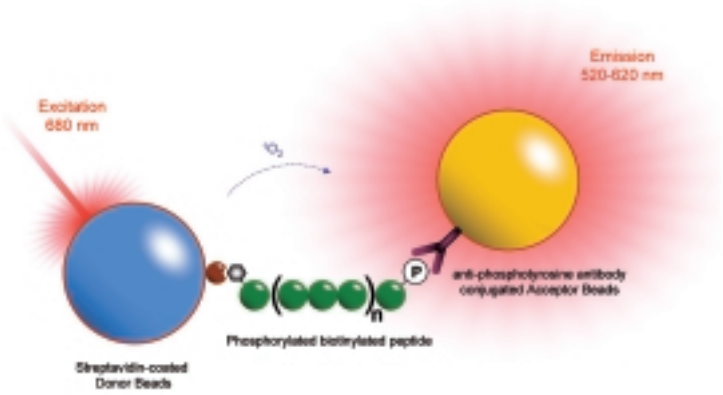
* To perform an IP_3 assay, the AlphaScreen GST Detection Kit is also required.
** To perform a cAMP assay, the AlphaScreen cAMP Assay Kit is also required.

AlphaScreen Phosphotyrosine

Assay Kits

AlphaScreen phosphotyrosine (PY20, PT66 and P-Tyr-100 clones) assay kits are intended for the detection of phosphorylated tyrosine moieties in proteins and/or peptides following tyrosine kinase activity.

Alternatively, detect serine/threonine kinase activity with an anti-phosphoserine/threonine antibody and indirect capture with the AlphaScreen Protein A or the appropriate anti-species antibody kits.



AlphaScreen Literature

www.perkinelmer.com/alphascreen

P-Tyr-100 Insulin Receptor Tyrosine Kinase Assay.	Application Note
AlphaScreen Kinase HTS Platforms. Warner G., Illy C., Pedro L., Roby P. and Bossé R. *Current Medicinal Chemistry.* 2004, 11, 719-728.	Scientific Article
Comparison of Kinase Assay Technologies for High Throughput Screening. SBS 8th Annual Conference. (2002).	Scientific Poster

Ordering Information

Note that the number of assay points is based on a 25 µL reaction volume and final bead concentration of 20 µg/mL.

	Quantity	Part No.
Phosphotyrosine (PY20) Assay Kit	500 pts	6760601C
	10,000 pts	6760601M
	50,000 pts	6760601R
Phosphotyrosine (PT66) Assay Kit	500 pts	6760602C
	10,000 pts	6760602M
	50,000 pts	6760602R

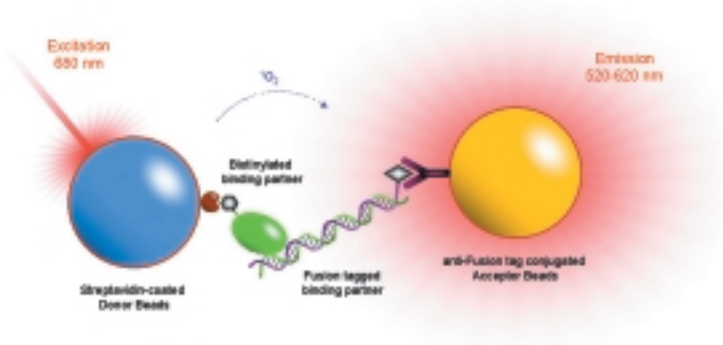
	Quantity	Part No.
Phosphotyrosine (P-Tyr-100) Assay Kit	500 pts	6760620C
	10,000 pts	6760620M
	50,000 pts	6760620R

AlphaScreen Fusion Tag

Detection Kits

AlphaScreen fusion tag detection kits are intended for the detection of proteins, peptides or oligonucleotides that are doubly-labeled with the tag and biotin. These kits are also used for the detection of protein-protein, protein-peptide, protein-DNA and/or peptide-DNA interactions where the binding partners are biotinylated and tagged, respectively.

Further your assay options with an indirect approach that uses a biotinylated antibody and offers more alternatives at the Donor bead side.



AlphaScreen Literature

www.perkinelmer.com/alphascreen

Comparison of ELISA and AlphaScreen Assay Technologies for Measurement of Protein Expression Levels.	Application Note
GBγ-GIRK1 Interaction Assay.	Application Note
Comparison of AlphaScreen, TR-FRET, and TRF as Assay Methods for FXR Nuclear Receptors. Glickman J. F., Wu X., Mercuri R., Illy C., Bowen B.R., He Y. and Sills M. *J. Biomol. Screening.* 2002, 7(1): 3-10.	Scientific Article
Comparison of Assay Technologies for a Nuclear Receptor Assay Screen Reveals Differences in the Sets of Identified Functional Antagonists. Wu X., Glickman F., Bowen B., Sills M. *J. Biomol. Screening.* 2003, 8(4): 381-392.	Scientific Article
Development of a Versatile Platform for Nuclear Receptor Screening using AlphaScreen. Rouleau N., Turcotte S., Mondou M. H., Roby P. and Bossé R. *J. Biomol. Screening.* 2003 Apr;8(2):191-7.	Scientific Article
Non-radioactive Methods for the Assay of Phosphoinositide 3-Kinases and Phosphoinositide Phosphatases and Selective Detection of Signaling Lipids in Cell and Tissue Extracts. Gray A., Olsson H., Batty I. H., Priganica L. and Peter Downes C. *Analytical Biochem.* 2003 Feb 15;313(2):234-45.	Scientific Article
Structural Basis for Antagonist-mediated Recruitment of Nuclear Co-repressors by PPARalpha. Xu H. E., Stanley T. B., Montana V. G., Lambert M. H., Shearer B. G., Cobb J. E., McKee D. D., Galardi C. M., Plunket K. D., Nolte R. T., Parks D. J., Moore J. T., Kliewer S. A., Wilson T. M. and Stimmel J. B. *Nature* 2002 Feb 7;415(6873):813-817.	Scientific Article
AlphaScreen PI3-Kinase Assay: A Homogeneous, High Throughput Assay for Screening Modulators of PI3-Kinase Activity. SBS 9th Annual Conference. (2003).	Scientific Poster
AlphaScreen to Monitor Protein Ubiquitination on Proteome Scale. 6th MipTech-ICAC Conference. (2003).	Scientific Poster
Detection of Low Affinity Interaction Occurring Between Complex Protein Structures using AlphaScreen. 4th MipTech-ICAC Conference. (2001).	Scientific Poster
Development of a Homogeneous Non-Radioactive HTS Platform for Detection of Nuclear Receptor Modulators using the AlphaScreen Technology. Keystone Symposium on Nuclear Receptor Superfamily. (2002).	Scientific Poster
Experience with AlphaScreen for High Throughput Screening of Low Affinity SH2 Domain Protein-Peptide Interactions. SBS 7th Annual Conference. (2001).	Scientific Poster
Homogeneous Detection and Measurement of Micromolar Affinity Interactions using AlphaScreen. SBS 6th Annual Conference. (2000).	Scientific Poster

Ordering Information

Note that the number of assay points is based on a 25 µL reaction volume and final bead concentration of 20 µg/mL.

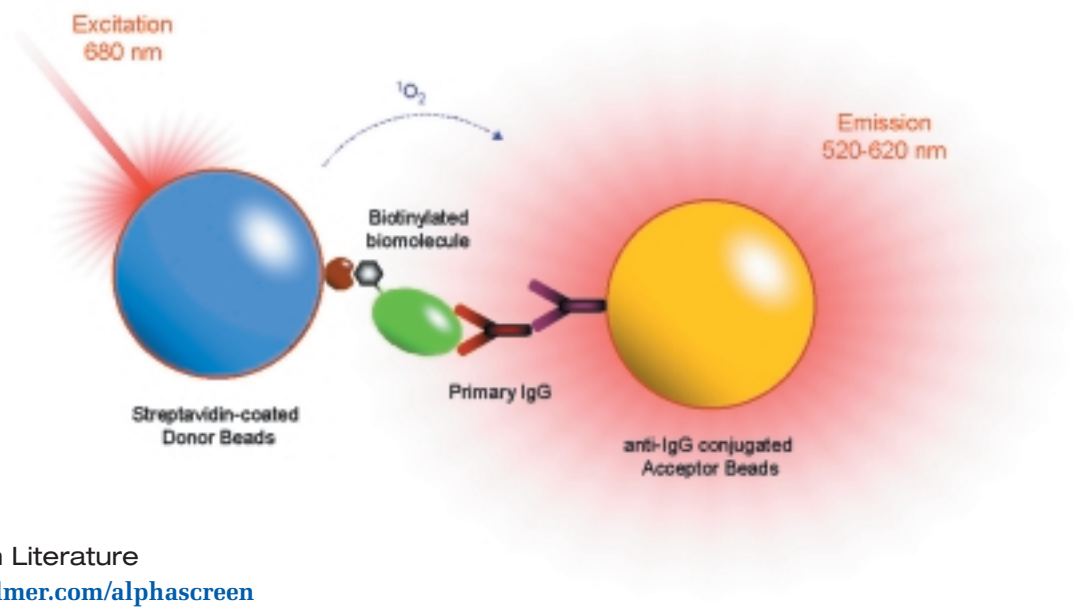
	Quantity	Part No.
GST (Glutathione-S-Transferase) Detection Kit	500 pts	6760603C
	10,000 pts	6760603M
	50,000 pts	6760603R
DIG (Digoxin/Digoxigenin) Detection Kit	500 pts	6760604C
	10,000 pts	6760604M
	50,000 pts	6760604R
FITC (Fluorescein) Detection Kit	500 pts	6760605C
	10,000 pts	6760605M
	50,000 pts	6760605R
HIS_6 (6-Histidine-Nickel Chelate) Detection Kit	500 pts	6760619C
	10,000 pts	6760619M
	50,000 pts	6760619R

	Quantity	Part No.
c-myc Detection Kit	500 pts	6760611C
	10,000 pts	6760611M
	50,000 pts	6760611R
HA (Hemagglutinin) Detection Kit	500 pts	6760612C
	10,000 pts	6760612M
	50,000 pts	6760612R
FLAG® (M2) Detection Kit	500 pts	6760613C
	10,000 pts	6760613M
	50,000 pts	6760613R
Biotinylated-GST	1.5 mL @ 500 nM	6760305M
Biotinylated-HIS	500 µL @ 5 µM	6760303M

AlphaScreen IgG

Detection Kits

AlphaScreen IgG detection kits are intended for the detection of molecules recognized by a primary IgG using a secondary antibody or Protein A approach.



AlphaScreen Literature

www.perkinelmer.com/alphascreen

MAP Kinase Assay.	Application Note
AlphaScreen Kinase HTS Platforms. Warner G., Illy C., Pedro L., Roby P. and Bossé R. *Current Medicinal Chemistry.* 2004, 11, 719-728.	Scientific Article
Development of a Versatile Platform for Nuclear Receptor Screening using AlphaScreen. Rouleau N., Turcotte S., Mondou M. H., Roby P. and Bossé R. *J. Biomol. Screening.* 2003 Apr;8(2):191-7.	Scientific Article
Development of a Homogeneous Non-Radioactive HTS Platform for Detection of Nuclear Receptor Modulators using the AlphaScreen Technology. Keystone Symposium on Nuclear Receptor Superfamily. (2002).	Scientific Poster
Development of a Homogeneous p38 Kinase Assay using AlphaScreen Technology. SBS 8th Annual Conference. (2002).	Scientific Poster
Development of a Miniaturized Non-Radioactive Assay for the Serine-Threonine Kinase, JNK-1, using AlphaScreen. SBS 6th Annual Conference. (2000).	Scientific Poster
Reverse-Proteomic Analysis of Rho GTPase Regulation by RhoGAPs using AlphaScreen. Caruso M. E., Jenna S., Nguyên D. T., Schrag J., Reboul J., Vidal M., Bossé R. and Chevet E. 6th Miptech-ICAC Conference. (2003).	Scientific Poster
Serine-Threonine Kinase Assays: An Evaluation of Currently Available Technologies. SBS 6th Annual Conference. (2000).	Scientific Poster
Ultra-Sensitive Detection of Akt Kinase using AlphaScreen. SBS 7th Annual Conference. (2001).	Scientific Poster

Ordering Information

Note that the number of assay points is based on a 25 µL reaction volume and final bead concentration of 20 µg/mL.

	Quantity	Part No.
Mouse IgG Detection Kit	500 pts	6760606C
	10,000 pts	6760606M
	50,000 pts	6760606R
Rabbit IgG Detection Kit	500 pts	6760607C
	10,000 pts	6760607M
	50,000 pts	6760607R

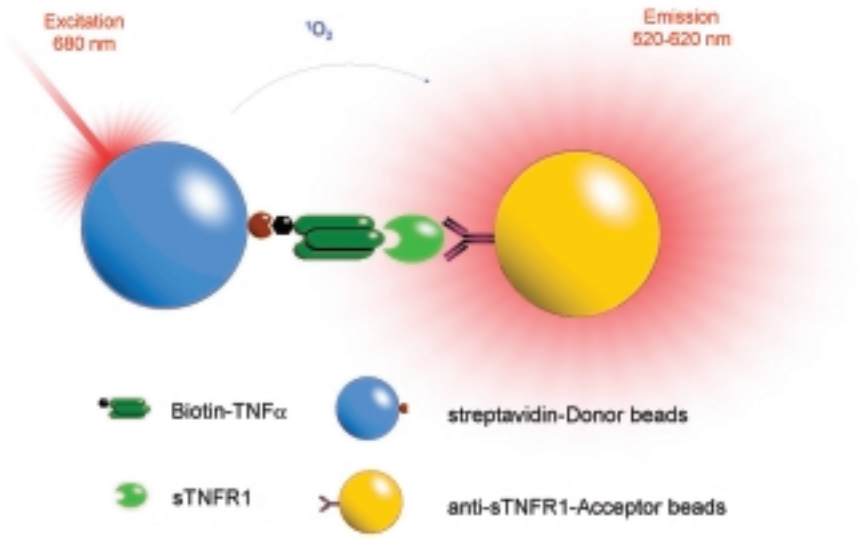
	Quantity	Part No.
General IgG (Protein A) Detection Kit	500 pts	6760617C
	10,000 pts	6760617M
	50,000 pts	6760617R
Protein A Acceptor beads	5 mg	6760137M
	25 mg	6760137R

AlphaScreen TNFα

Receptor Binding Kit

The AlphaScreen TNFα/sTNFR1 assay kit is intended for the screening of molecules that can displace the ligand-receptor interaction. sTNFR1, captured by anti-sTNFR1 Acceptor bead, binds to biotinylated TNFα derivative which is captured by the Streptavidin Donor beads to generate the AlphaScreen signal. Molecules binding to either TNFα or the sTNFR1 will compete for binding and therefore result in a signal decrease.

The kit contains Streptavidin-Donor beads, anti-sTNFR1 Acceptor beads, biotinylated TNFα and a control buffer. The kit does not include the receptor, which should be purchased separately, for example, from R&D Systems (636-R1).



AlphaScreen Literature

www.perkinelmer.com/alphascreen

Screening for Inhibitors to TNFα/sTNFR1 Binding using AlphaScreen Technology.	Application Note
AlphaScreen TNFα Binding Assay Kit: Homogeneous, Sensitive and High Throughput Assay for Screening TNFα Receptors. SBS 8th Annual Conference. (2002).	Scientific Poster

Ordering Information

Note that the number of assay points is based on a 25 µL reaction volume and final bead concentration of 20 µg/mL.

	Quantity	Part No.
TNFα Receptor Binding Kit	500 pts	6760622C
	10,000 pts	6760622M
	50,000 pts	6760622R

AlphaScreen Beads

Streptavidin-coated AlphaScreen Donor beads as well as unconjugated AlphaScreen Donor and Acceptor beads are available for any "do-it-yourself" assay development. Conjugation of biomolecules to AlphaScreen beads is a very simple procedure. Unconjugated beads are readily available to facilitate access to, and allow the creation of, custom assay formats not commercially available or of a proprietary nature.

AlphaScreen Literature

www.perkinelmer.com/alphascreen

Development of a High Throughput Screening Assay for Inhibitors of Aggrecan Cleavage using Luminescent Oxygen Channeling (AlphaScreen). Peppard J., Glickman F., He Y., Hu S. I., Doughty J. and Goldberg R. *J. Biomol. Screening. 2003* Apr;8(2):149-56.	Scientific Article
Highly Sensitive Detection of the Interaction Occurring Between Phage Displayed Peptides and Their Target using AlphaScreen.	Scientific Poster

Ordering Information

Note that 1 mg translates into 2,000 assay points based on a 25 µL reaction volume and final bead concentration of 20 µg/mL.

	Quantity	Part No.
Streptavidin-coated Donor beads	1 mg	6760002S
	5 mg	6760002
	50 mg	6760002B
Unconjugated Donor beads	1 mg	6762013
	5 mg	6762011
	50 mg	6762012

	Quantity	Part No.
Unconjugated Acceptor beads	1 mg	6762003
	5 mg	6760001
	50 mg	6762002
AlphaScreen Conjugation Kit		6760000K
• Streptavidin-coated Donor beads	2 mg	
• Unconjugated Acceptor beads	2 mg	

Custom bead conjugation available upon request, e-mail at **labellingservices@perkinelmer.com**
To get a quotation for custom assay development e-mail at **assayservices@perkinelmer.com**

AlphaScreen General Literature

www.perkinelmer.com/alphascreen

A Practical Guide to Working with AlphaScreen.	Guidebook
Analysis of Potential Compound Interference of AlphaScreen Signal.	Application Note
Homogeneous Assays: AlphaScreen. *Handbook of Drug Screening.* Seethala R. and Prabhavathi F. Marcel. Dekker Pub. 2001. pp. 106-110.	Scientific Article
Miniaturizing Screening: How Low Can We Go Today? Bossé R., Illy C., Elands J. and Chelsky D. *Drug Discovery Today.* 2000 Jun: 1(1): 42-7.	Scientific Article

Antibody Specificity Information

cAMP Assay Kit

- **Anti-cAMP antibody**
  Type: polyclonal goat antibody

  Specificity: cross-reaction with cGMP is less than 0.005%, with ATP less than 0.007% and with other nucleotides less than 0.001%

Phosphotyrosine Assay Kits

- **PY20**
  Type: mouse monoclonal antibody, IgG2b subclass

  Specificity: binds to phosphorylated tyrosine residues

- **PT66**
  Type: mouse monoclonal antibody, IgG1 subclass

  Specificity: binds to phosphorylated tyrosine residues, does not react with phosphorylated AMP or ATP

- **P-Tyr-100**
  Type: mouse monoclonal antibody, IgG1 subclass

  Specificity: binds to phosphorylated tyrosine residues, does not cross-react with the corresponding non-phosphorylated peptides or with phosphoserine or phosphothreonine

IgG Detection Kits

- **Anti-mouse antibody**
  Type: polyclonal rabbit antibody

  Specificity: reacts with mIgG, mIgA and mIgM

- **Anti-rabbit antibody**
  Type: polyclonal goat antibody

Fusion Tag Detection Kits

- **Anti-GST antibody**
  Type: polyclonal goat antibody

  Specificity: binds to GST from *Schistosoma japonicum*, does not recognize rabbit, pig, bovine, rat or human GST

- **Anti-His_6 antibody**
  Type: mouse monoclonal antibody, IgG1 subclass

  Specificity: HHHHHH

- **Anti-hemagglutinin (HA) antibody**
  Type: mouse monoclonal antibody, IgG2b subclass, clone 12CA5

  Specificity: YPYDVPDYA derived from the hemagglutinin protein of human influenza virus

- **Anti-digoxin/digoxigenin (DIG) antibody**
  Type: polyclonal goat antibody

  Specificity: digoxin

- **Anti-FLAG (M2) antibody**
  Type: mouse monoclonal antibody, IgG1 subclass

  Specificity: DYKDDDDK, the M2 antibody will recognize the FLAG sequence at the N-terminus, Met-N-terminus or c-terminus of FLAG fusion proteins

- **Anti-fluorescein (FITC) antibody**
  Type: mouse monoclonal antibody, IgG2a subclass

  Specificity: Fluorescein, FITC-labeled protein

- **Anti-c-myc antibody**
  Type: mouse monoclonal antibody, IgG1 subclass, clone 9E10

  Specificity: EQKLISEEDL derived from human c-myc protein, does not cross react with other cellular proteins

General IgG (Protein A)

Human		Mouse		Rat		Other Species		Fragments	
IgG1	(++++)	IgG1	(+)	IgG1	(-)	Rabbit Ig	(++++)	Human Fab	(+)
IgG2	(++++)	IgG2a	(++++)	IgG2a	(-)	Hamster Ig	(+)	Human F	$(ab')_2$ (+)
IgG3	(-)	IgG2b	(+++)	IgG2b	(-)	Guinea Pig Ig	(++++)	Human scFv	(+)
IgG4	(++++)	IgG3	(++)	IgG2c	(+)	Bovine Ig	(++)	Human Fc	(++)
IgA	(++)	IgM	(+/-)	IgM	(+/-)	Sheep Ig	(+/-)	Human _	(-)
IgD	(++)					Goat Ig	(+/-)	Human _	(-)
IgE	(++)					Pig Ig	(+++)		
IgM	(++)					Chicken Ig	(-)		

AlphaScreen Complementary Instrumentation

PerkinElmer offers state-of-the-art complementary instrumentation to read your AlphaScreen assays. AlphaScreen can be measured on the EnVision Multilabel Plate Reader with AlphaScreen technology, the Fusion-Alpha Multilabel Reader, or the AlphaQuest HTS Microplate Analyzer.

The EnVision Multilabel Plate Reader with AlphaScreen technology is especially suitable for medium throughput screening as well as assay development, measuring a 384-well plate in typically 5 minutes or even less, providing 1.5 times more throughput than the Fusion-Alpha. The Fusion-Alpha provides performance as superior as the EnVision at a moderate throughput. AlphaQuest HTS is a dedicated AlphaScreen reader with two laser diodes and four read heads, designed for high throughput demands in the HTS environment. 1536-well plates can be read in typically 9 minutes or even less on an AlphaQuest HTS.

All three instruments use the same principles for measuring AlphaScreen, with optics designed to ensure smooth transfer from 96- to 1536-well formats. Thus, moving from assay development to high throughput screening is quick and easy, regardless of the detection platform used.

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