

Caution: For Laboratory Use. A research reagent for research purposes only

## Human Adrenergic $\beta$ 2 Receptor, $\gamma$ -Irradiated Frozen Cells

Product No.: ES-034-CF

Lot No.: 1002

### Material Provided

<b>Cells:</b>	1 x 1 mL frozen aliquot
<b>Format:</b>	~2.5 x 10 <sup>6</sup> cells / mL in Ham's F12, 10% FBS with 10 % DMSO

### Product Information

<b>Cellular Background:</b>	CHO-K1
<b>Frozen cells info:</b>	Frozen recombinant, $\gamma$ -irradiated CHO-K1 cells expressing the human adrenergic $\beta$ 2 receptor.
<b>DNA Sequence:</b>	Identical to coding sequence of GenBank J02960.
<b>Corresponding Protein Sequence:</b>	Identical to GenBank AAF20199
<b>Storage Conditions:</b>	Store in liquid nitrogen (vapor phase) immediately upon receipt, or maximum 15 days at -80°C. cAMPZen <sup>®</sup> is designed for single use only. Do not refreeze.

### Quality Control

EC<sub>50</sub> for a reference agonist is determined using a LANCE<sup>®</sup> cAMP assay (Figure 1). Mycoplasma test is performed using MycoAlert<sup>®</sup> Mycoplasma detection kit. We certify that these results meet our quality release criteria.

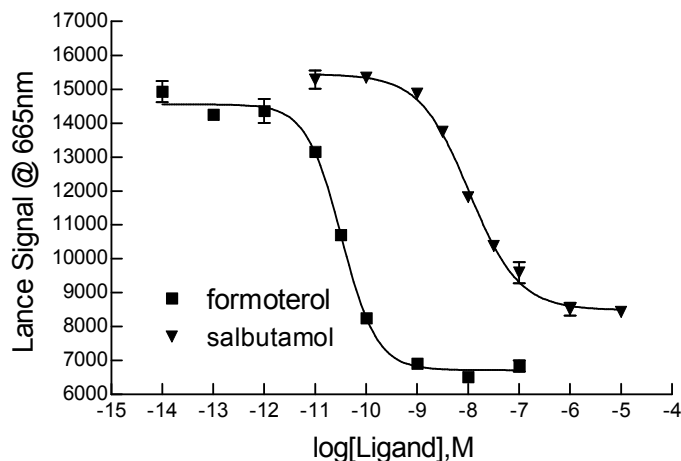
<b>Formoterol hemifumarate - (EC<sub>50</sub>):</b>	0.0078 nM
<b>Mycoplasma:</b>	This cell line tested negative for Mycoplasma.

## Recommended Use and Thawing Conditions

**Assay Medium:** HBSS 1X (without phenol red); 5 mM HEPES; BSA-stabilizer (7.5% solution); 0.5 mM IBMX (pH 7.4).

**Thawing Cells:** Using appropriate personal protective equipment, place the frozen aliquot in a 37°C water bath and agitate until its content is thawed completely. Immediately remove from water bath, transfer content to 10 mL assay medium and centrifuge (150 x g, 5 min). Resuspend cell pellet in appropriate volume of assay medium for use in the selected LANCE<sup>®</sup> cAMP assay (see LANCE<sup>®</sup> cAMP Assays section).

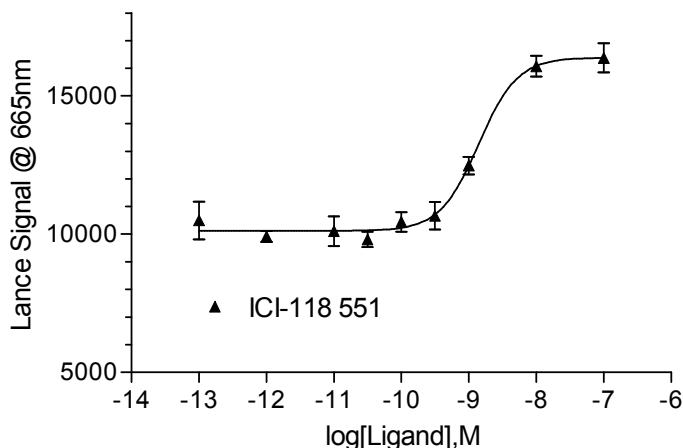
## Typical Product Data



Agonist	EC <sub>50</sub> (M)
Formoterol hemifumarate	3.3 x 10 <sup>-11</sup>
Salbutamol hemisulfate salt	1.1 x 10 <sup>-8</sup>

**Figure 1: Agonist Response in LANCE<sup>®</sup> cAMP assay**

An agonist dose-response experiment was performed in 384-well format using 5000 cells/well. Cell stimulation was performed for 30 min at room temperature. Reader: EnVision<sup>®</sup>. Data from a representative experiment are shown. The Z'-factor was calculated for Formoterol hemifumarate with at least 16 background and 16 maximal signal points (Z' = 0.65).



Antagonist	IC <sub>50</sub> (M)
ICI-118,551 hydrochloride	1.4 x 10 <sup>-9</sup>

**Figure 2: Antagonist Response in LANCE<sup>®</sup> cAMP assay**

An antagonist dose-response experiment was performed in 384-well format using 5000 cells/well and 0.1 nM Formoterol hemifumarate (reference agonist). Cell stimulation was performed for 10 min at room temperature. Reader: EnVision<sup>®</sup>. Data from a representative experiment are shown.

**Table 1. References of compounds used for functional characterization**

Name	Provider	Cat n°	Working Stock Solution
Formoterol hemifumarate	Tocris	1448	10 mM in DMSO
Salbutamol hemisulfate salt	Tocris	1660	10 mM in PBS-D, 0.1% BSA
ICI-118,551 hydrochloride	Tocris	0821	50 mM in water

## LANCE<sup>®</sup> cAMP Assays

**LANCE<sup>®</sup> Ultra cAMP** - please refer to the user manual included with the LANCE<sup>®</sup> Ultra cAMP kits:

**TRF0262 – 1 000 Assay points**

**TRF0263 – 10 000 Assay points**

**TRF0264 – 50 000 Assay points**

**LANCE<sup>®</sup> cAMP** - please refer to the user manual included with the LANCE<sup>®</sup> cAMP kits:

**AD0262 – 500 Assay points**

**AD0262E – 1 000 Assay points**

**AD0263 – 10 000 Assay points**

**AD0264 – 50 000 Assay points**

## Suggested Materials and Instrumentation

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[www.perkinelmer.com/CellLines](http://www.perkinelmer.com/CellLines)

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PerkinElmer, Inc.  
940 Winter Street  
Waltham, MA 02451 USA  
P: (800) 762-4000 or  
(+1) 203-925-4602  
[www.perkinelmer.com](http://www.perkinelmer.com)



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