

Red Fluorochrome Label

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

VivoTag[®] 645

Product Number: NEV11174

DESCRIPTION: *VivoTag*[®] 645 is an amine reactive red fluorochrome (NHS ester) for molecular labeling applications. *VivoTag* 645 enables optimized and integrated imaging applications in both *in vivo* and *in vitro* applications. *VivoTag* 645's superior brightness makes it particularly well suited for the labeling and imaging of proteins, antibodies, and small molecules in a wide range of research areas. The 645 nm fluorescence wavelength is ideal for biological imaging applications on *in vitro* and *in vivo* fluorescence systems, including advanced microscopes, high content imaging and flow cytometry systems. It is also optimized for use with VisEn's fluorescence tomography FMT[™] imaging systems with expanded wavelength capabilities to enable quantitative imaging of up to four channels and four different biomarkers of interest *in vivo*.

MATERIAL

CONTENTS: *VivoTag* 645: Available in 1 mg or 5 mg vials.

PROPERTIES: The physical characteristics of *VivoTag* 645 can be found in **Table 1 and Figure 1.**

STORAGE & HANDLING:

- Upon receipt, *VivoTag* 645 should be **IMMEDIATELY STORED AT -20 °C AND PROTECTED FROM LIGHT.**
- When stored and handled properly, *VivoTag* 645 is stable for up to eight months.
- Allow *VivoTag* 645 to equilibrate to room temperature before using.

APPLICATIONS:

- Red fluorophore optimized for labeling target molecules including peptides, small molecules, nanoparticles, and macromolecules such as proteins and antibodies.
- Highly hydrophilic and suitable for single or multiple dye loading.
- Protocol to conjugate *VivoTag* 645 to antibodies and proteins is available upon request.

Table 1. *VivoTag* 645 Characteristics

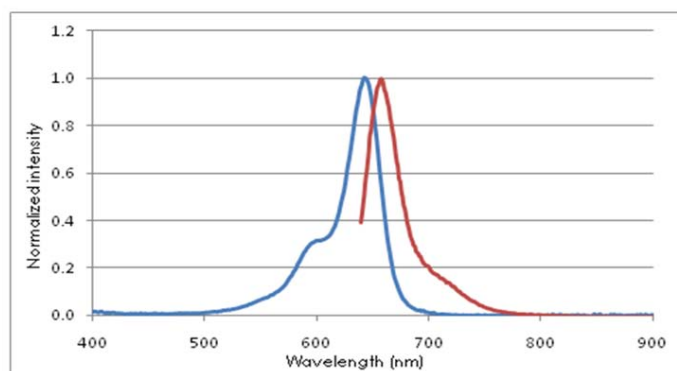
Property	Specification
MW*	1393 g mol ⁻¹
Absorbance ¹	643 nm
Emission ¹	660 nm
Extinction	210,000 M ⁻¹ cm ⁻¹
Purity ²	>90%
Appearance	Royal Blue solid

1. Absorbance and fluorescence emission maxima determined in 1x PBS.

2. Reactive ester as determined by RP-HPLC and measuring absorbance at 645 nm.

*MW as tris TEA Salt

Figure 1. Absorbance and fluorescence emission spectra of *VivoTag* 645 in 1x PBS.



NOTES:

- *PerkinElmer's VivoTag 645* is intended for research purposes only and is not for human use. It must be used by or directly under the supervision of a technically qualified individual experienced in handling potentially hazardous materials. Please read the Material Safety Data Sheet (MSDS) provided for this product.
- Several of *PerkinElmer's* products and product applications are covered by U.S and foreign patents and patents pending. Our products are not available for resale or other commercial uses without a specific agreement from *PerkinElmer*.

PerkinElmer, Inc.
549 Albany Street
Boston, MA 02118 USA
P: (800) 762-4000 or (+1) 203-925-4602
www.perkinelmer.com/nenradiochemicals

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