

iFluor 750™ RGD Conjugate

Catalog number: 36800

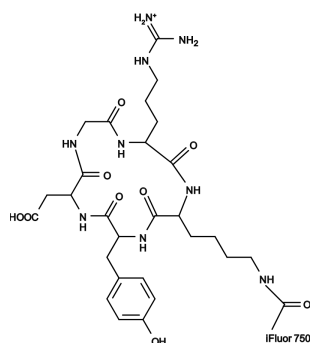
Unit size: 1 mg

Product Details

Storage Conditions	Freeze (<math>< -15\text{ }^{\circ}\text{C}</math>), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	~1600
Soluble In	DMSO
Chemical Structure	


Spectral Properties

Excitation Wavelength	757 nm
Emission Wavelength	779 nm

Applications

Near-infrared fluorescence optical imaging (also called in vivo Imaging) is emerging as a powerful technology for studying diseases at molecular level in small animal models. Water and biological tissues have minimal absorbance and autofluorescence in the NIR window (650-900 nm), thus allowing efficient photon penetration into, and out of tissue with low intra-tissue scattering. Across this NIR window, light absorption by physiologically abundant molecules such as hemoglobin, oxyhemoglobin and deoxyhemoglobin is also reduced to a minimum. In vivo imaging systems with biocompatible fluorescence agents are being developed and optimized for use in the near infrared spectral region - ensuring maximum light penetration and highest sensitivity. The cell adhesion molecule integrin is involved in angiogenesis and metastasis in many tumor types. Integrin is significantly up-regulated in activated endothelial cells and fast-growing solid tumor cells, compared to its minimum expression in quiescent blood vessels and most normal tissues. iFluor™ 750-labeled monomeric arginine-glycine-aspartic acid (RGD) peptide c(RGDyK) specifically targets integrin both in cell culture and in living subjects. The in vivo efficacy of iFluor™ 750-c(RGDyK) depends on many factors, including the receptor affinity, specificity, molecular size, overall molecular charge, hydrophilicity and metabolic stability.