

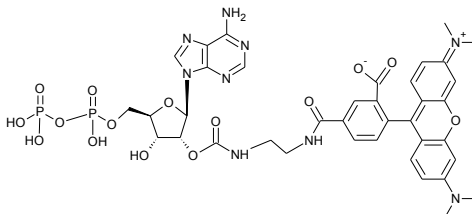
Product Information Sheet

Ordering Information

Product Number:	13606
Product Name:	ADP-TAMRA conjugate
Unit Size:	100 nmoles
Storage Conditions:	<-15 °C and kept from light and moisture
Expiration Date:	12 months upon receiving

Chemical, Physical and Spectral Properties

Molecular Weight:	925.73
Appearance:	Red powder



Chemical Structure:

Soluble in:	DMSO
Excitation Wavelength:	544 nm
Emission Wavelength:	575 nm

Application Notes

Fluorescently labeled ADP molecules are used to screening ADP-binding enzymes and other protein targets for drug discovery. This ADP-TAMRA has been tested for binding kynurenine monooxygenase (KMO) with a $K(d)$ value of $0.60 \pm 0.05 \mu\text{M}$ and to the NMOs from *Aspergillus fumigatus* and *Mycobacterium smegmatis* with $K(d)$ values of 2.1 ± 0.2 and $4.0 \pm 0.2 \mu\text{M}$, respectively (Anal Biochem. 2012, 425, 80-7). The assay was tested in competitive binding experiments with substrates and products of KMO and an NMO. NMOs are essential for pathogenesis in fungi and bacteria. NMOs catalyze the hydroxylation of sine and ornithine in the biosynthesis of hydroxamate-containing siderophores. Inhibition of KMO, which catalyzes the conversion of kynurenine to 3-hydroxykynurenine, alleviates neurodegenerative disorders such as Huntington's and Alzheimer's diseases and brain infections caused by the parasite *Trypanosoma brucei*.