**PRODUCT INFORMATION**

**6-IATR**

**Item No. 16531**

**CAS Registry No.:** 136538-85-7  
**Formal Name:** N-[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]-2-iodo-acetamide  
**Synonym:** 6-Iodoacetamidotetramethylrhodamine  
**MF:** C_{26}H_{24}IN_{3}O_{4}  
**FW:** 569.4  
**Purity:** ≥90%  
**UV/Vis.:** λ_{max} 223, 280, 350, 547 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

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**Laboratory Procedures**

6-IATR is supplied as a crystalline solid. A stock solution may be made by dissolving the 6-IATR in the solvent of choice, which should be purged with an inert gas. 6-IATR is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 6-IATR in these solvents is approximately 5 and 1 mg/ml, respectively.

6-IATR is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 6-IATR should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 6-IATR has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

6-IATR is a thiol-reactive fluorescent probe for labeling proteins (excitation/emission maxima = ~555/580 nm). It is the 6-isomer of iodoacetamidotetramethylrhodamine (IATR) where the iodoacetamido group occurs at the 6-position. A 5-isomer of IATR has also been identified. 6-IATR and 5-IATR have distinct binding preferences for myosin conformational states. 6-IATR has been used as a biosensor for inorganic phosphate.

**References**