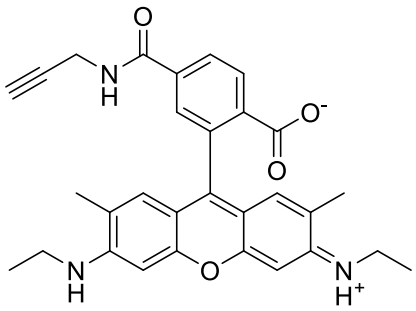
Product data sheet

MedKoo Cat#: 558813 Name: R6G alkyne, 6-isomer CAS: To be determined Chemical Formula: $C_{30}H_{29}N_3O_4$ Exact Mass: 495.2158 Molecular Weight: 495.58	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.



Product description:
Rhodamine 6G (R6G) is a xanthene dye of rhodamine series. Compared to fluorescein, its emission is shifted to red. It is also much more photostable. The fluorophore has a high quantum yield.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
To be determined	To be determined	To be determined

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.02 mL	10.09 mL	20.18 mL
5 mM	0.40 mL	2.02 mL	4.04 mL
10 mM	0.20 mL	1.01 mL	2.02 mL
50 mM	0.04 mL	0.20 mL	0.40 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Santos FDS, Ramasamy E, da Luz LC, Ramamurthy V, Rodembusch FS. Spectroscopic Insights of an Emissive Complex between 4'-N,N-Diethylaminoflavonol in Octa-Acid Deep-Cavity Cavitand and Rhodamine 6G. Molecules. 2023 May 23;28(11):4260. doi: 10.3390/molecules28114260. PMID: 37298739; PMCID: PMC10254886.
2. Ávila-Sánchez MA, Isaac-Olivé K, Aranda-Lara L, Morales-Ávila E, Plata-Becerril A, Jiménez-Mancilla NP, Ocampo-García B, Estrada JA, Santos-Cuevas CL, Torres-García E, Camacho-López MA. Targeted photodynamic therapy using reconstituted high-density lipoproteins as rhodamine transporters. Photodiagnosis Photodyn Ther. 2022 Mar;37:102630. doi: 10.1016/j.pdpdt.2021.102630. Epub 2021 Nov 17. PMID: 34798347.

In vivo study

1. Pallavi P, Harini K, Crowder S, Ghosh D, Gowtham P, Girigoswami K, Girigoswami A. Rhodamine-Conjugated Anti-Stokes Gold Nanoparticles with Higher ROS Quantum Yield as Theranostic Probe to Arrest Cancer and MDR Bacteria. Appl Biochem Biotechnol. 2023 Mar 28. doi: 10.1007/s12010-023-04475-0. Epub ahead of print. PMID: 36976503.
2. Yang Y, Liu L, Wu X, Wang X, Lu Q, Zhang Z. CO2 fractional laser-assisted transdermal delivery of silk nanofiber carriers in a rabbit ear hypertrophic scar model. Burns Trauma. 2022 Nov 11;10:tkac040. doi: 10.1093/burnst/tkac040. PMID: 36380852; PMCID: PMC9650785.

7. Bioactivity

Product data sheet

Biological target:

R6G alkyne, 6-isomer is a dye. It is part of the rhodamine 6G series, a highly fluorescent rhodamine family dye.

In vitro activity

This study investigated the ground and excited states of 4'-N,N-diethylaminoflavonol (DEA3HF) in an octa acid-based confined medium and in ethanolic solution, both in the presence of Rhodamine 6G. The Stern-Volmer plots suggest a static quenching mechanism for both systems.

Reference: Molecules. 2023 May 23;28(11):4260. https://pubmed.ncbi.nlm.nih.gov/37298739/

In vivo activity

This study found that R6G-conjugated AuNP is an effective theranostic agent that prevents the progression of cancer and MDR bacteria, along with contrasting abilities in medical imaging with minimal toxicity observed in in vitro and in vivo assays using zebrafish embryos.

Reference: Appl Biochem Biotechnol. 2023 Mar 28. https://pubmed.ncbi.nlm.nih.gov/36976503/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.