# **Product data sheet**



MedKoo Cat#: 598518				
Name: LD 490				
CAS: 58336-35-9				
Chemical Formula: C <sub>15</sub> H <sub>15</sub> NO <sub>2</sub>				
Exact Mass: 241.1103				
Molecular Weight: 241.29				
Product supplied as:	Powder			
Purity (by HPLC):	$\geq 98\%$			
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.			



## 1. Product description:

LD 490 is a laser dye.

## 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
TBD	TBD	TBD

#### 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.14 mL	20.72 mL	41.44 mL
5 mM	0.83 mL	4.14 mL	8.29 mL
10 mM	0.41 mL	2.07 mL	4.14 mL
50 mM	0.08 mL	0.41 mL	0.83 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. Usta HM, Forough M, Persil Çetinkol Ö. Coumarin 6H-fused fluorescent probe for highly sensitive detection of coralyne using oligonucleotide-modified silver nanoparticles. Anal Bioanal Chem. 2022 Oct;414(24):7299-7313. doi: 10.1007/s00216-022-04282-2. Epub 2022 Aug 17. PMID: 35976422.

2. Marrs CD, Faith WN, Dancy JH, Porteus JO. Pulsed laser-induced damage of metals at 492 nm. Appl Opt. 1982 Nov 15;21(22):4063-6. doi: 10.1364/AO.21.004063. PMID: 20401009.

#### In vivo study

1. Han Z, Dong L, Sun F, Long L, Jiang S, Dai X, Zhang M. A novel fluorescent probe with extremely low background fluorescence for sensing hypochlorite in zebrafish. Anal Biochem. 2020 Aug 1;602:113795. doi: 10.1016/j.ab.2020.113795. Epub 2020 May 28. PMID: 32473120.

## 7. Bioactivity

Biological target:

Coumarin 6H, a Coumarin (Coumarin (HY-N0709)) derivative, is a laser dye.

## In vitro activity

A triaxial flashlamp-pumped dye laser has been used to perform laser damage testing of metal surfaces in the blue-green spectral region. Using LD490 laser dye, the laser produces 0.18-J, 0.5-microsec pulses at 492 nm.

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Reference: Appl Opt. 1982 Nov 15;21(22):4063-6. https://pubmed.ncbi.nlm.nih.gov/20401009/

#### In vivo activity

Herein, based on the combined effect of two different fluorescence quenching groups, this study rationally developed a novel fluorescent probe for hypochlorite with extremely low background fluorescence. Moreover, the fluorescence imaging different concentration of hypochlorite in zebrafish has been successfully conducted.

Reference: Anal Biochem. 2020 Aug 1;602:113795. https://pubmed.ncbi.nlm.nih.gov/32473120/

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.