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# **Product** Data Sheet

## Patent Blue V

**Cat. No.:** HY-W110929 **CAS No.:** 129-17-9

Molecular Formula: C<sub>27</sub>H<sub>31</sub>N<sub>2</sub>NaO<sub>6</sub>S<sub>2</sub>

Molecular Weight: 566.66

Target: Fluorescent Dye

Pathway: Others

Storage: -20°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 125 mg/mL (220.59 mM; Need ultrasonic) H<sub>2</sub>O: 1 mg/mL (1.76 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.7647 mL	8.8236 mL	17.6473 mL
	5 mM	0.3529 mL	1.7647 mL	3.5295 mL
	10 mM	0.1765 mL	0.8824 mL	1.7647 mL

Please refer to the solubility information to select the appropriate solvent.

### **BIOLOGICAL ACTIVITY**

Description

Patent Blue V (Acid blue 1) is a novel biological dye that can be used as an intraocular dye for retinectomy. Retinectomy refers to the removal of the translucent inner limiting membrane (ILM). The application of appropriate dyes in vitreoretinal surgery can achieve the purpose of complete removal. Patent Blue V can be used to stain retinal premembranous structures. Spectral analysis shows that Patent Blue V has strong absorption below 450 nm and above 600 nm, showing a blue-green color. Patent Blue V is also used as a marker in lymphangiography for resection of neoplastic lymph nodes [1][2].

#### **REFERENCES**

[1]. Mennel S, et al. Patent blue: a novel vital dye in vitreoretinal surgery. Ophthalmologica. 2006;220(3):190-3.

[2]. Barranger E, et al. Laparoscopic sentinel lymph node procedure using a combination of patent blue and radioisotope in women with cervical carcinoma. Cancer. 2003 Jun 15;97(12):3003-9.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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