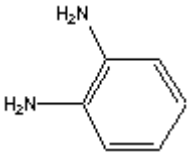
formerly ICN Biomedicals, Inc EMPOWERED DISCOVERY

Catalog Number: 151827, 151828, 159520, 195379, 198808

o-Phenylenediamine

Structure (free base)**:**



Free Base
Molecular Formula: $C_6H_8N_2$
Molecular Weight: 108.1
CAS # 95-54-5
Solubility: Slightly soluble in water; freely soluble in alcohol, chloroform or ether

Dihydrochloride
Molecular Formula: $C_6H_8N_2 \cdot 2HCl$
Molecular Weight: 181.1
CAS # 615-28-1
Solubility: Soluble in water

Synonyms: OPD; 1,2-Diaminobenzene

Physical Appearance: White to off white powder or tablets

Note: Product may darken during storage

Description: OPD is a peroxidase substrate. The substrate produces a soluble end product that is orange-brown in color and can be read spectrophotometrically at 450 nm. The OPD reaction may be stopped with 3 N HCl or 3 M H_2SO_4 and read at 492 nm.

Typical Preparation for powders:

Dissolve 0.5 mg/ml OPD in 0.1 M citrate-phosphate buffer, pH 5.0. Add 15 to 20 microliters 30% H_2O_2 per 50 ml immediately prior to use.

Typical Preparation for tablets:

Dissolve one tablet in 0.1 M Sodium phosphate buffer, pH 5, to desired concentation (a typical concentration of 0.5 mg/ml is usually used). Add 15 to 20 microliters 30% H_2O_2 per 50 ml immediately prior to use.

Preparation of 0.1 M Citrate-Phosphate, pH 5.0, buffer:

To 800-900 ml DI water add:
18.16 g $Na_2HPO_4 \cdot 7H_2O$ (MP 191441)
9.42 g Citric Acid (MP 101393)
Adjust to pH 5.0 with NaOH or HCl.
QS to 1 L with DI water and mix.

Availability:

Catalog Number	Description	Size
151827	OPD, free base, Grade I. This product is a white to off-white solid which may darken during storage.	10 g 25 g 50 g 100 g
151828	OPD, free base. Tan to brown crystals. A less expensive alternative to our Grade I material.	50 g 250 g 1 kg
195379	OPD, dihydrochloride, powder	10 g 25 g 50 g 100 g
159520	OPD, dihydrochloride, tablets, approximately 13 mg OPD per tablet	10 tab 50 tab 100 tab
198808	OPD, dihydrochloride, tablets, approximately 10 mg OPD per tabl	

		100 tab

References:

1. Boviard, J.H., et al., *Clin. Chem.*, **v. 28**, 2423 (1982).
2. Buckberry, L.D., et al., *J. Liquid Chromatogr.*, **v. 16**, 3073 (1993).
3. Hughes, H., et al., *Anal. Biochem.*, **v. 119**, 1 (1982).
4. Tarcha, P.J., et al., *Anal. Biochem.*, **v. 165**, 230 (1987).
5. Wolters, G., et al., *J. Clin. Path.*, **v. 29**, 873 (1976).