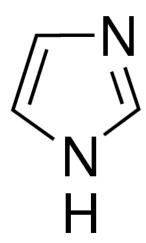


# *Imidazole*

Cat # NB-42-01139-500g Size: 500g

Cat # NB-42-01139-1kg Size: 1kg

Cat # NB-42-01139-2.5kg Size: 2.5kg



#### **Product Information**

Chemical Name: 1,3-Diaza-2,4-cyclopentadiene, Glyoxaline

Batch Molecular Formula: C<sub>3</sub>H<sub>4</sub>N<sub>2</sub>

Batch Molecular Weight: 68.08

**CAS No.:** [288-32-4]

Physical Appearance: White crystalline powder

Melting point: 87-91°C
Water content (KF): ≤0.2%

#### Solvent and solubility

Soluble in water: 500 mg/mL, clear, colorless to very faintly yellow

#### Shipping and storage

Store ambient

## **Biological activity**

Imidazole is a heterocyclic compound with a five-membered planar ring. It is amphoteric and highly polar. The pharmacophore exists in bioactive compounds including amino acids, plant growth regulators and therapeutic agents.

Imidazole derivatives have antibacterial, antifungal and anticancer functionality. It interacts with DNA and also binds to protein and stops cell division. It also acts as a microtubule destabilizing agents and inhibits topoisomerase and Cytochrome P450 Family 26 Subfamily A Member 1 (CYP26A1) enzymes. Imidazole based anticancer drug find applications in cancer chemotherapy. It is used

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as buffer component for purification of the histidine tagged recombinant proteins in immobilized metal-affinity chromatography (IMAC).

## **Application**

Imidazole has been used

- in the lysis, wash and elution buffer for the purification of histidine tagged Sonic Hedgehog(shh-N) protein
- in elution buffer in stepwise gradient for the purification of histidine tagged aldo keto reductases using nickel affinity chromatography
- as a component of homogenization buffer for the purification of phagosomal compartments from dendritic cells

Excellent for buffers in the range of pH 6.2-7.8

## **Analytical data**

HPLC: >99.5% pure

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