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Hirudin

Catalog # PVGS1128

Product Information

Primary Accession	P84590
Species	Medicinal leech
Sequence	Val1-Leu63
Purity	> 96% as analyzed by SDS-PAGE > 96% as analyzed by HPLC
Endotoxin Level	
Biological Activity	The biological activity is determined by chromogenic assay, 1 unit is defined as the amount of Hirudin that neutralizes 1 unit of the WHO preparation 89/588 of thrombin. The specific activity is no less than 14,000 ATU/mg protein.
Expression System	P. pastoris
Theoretical Molecular Weight	6.9 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in 20 mM PBS, pH 7.0, 2% mannitol.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Other Names	Hirudin, HIRUD
Target Background	Hirudin is a naturally occurring peptide in the salivary glands of blood-sucking leeches (such as Hirudo medicinalis) that has a blood anticoagulant property. Hirudin is the most potent natural inhibitor of thrombin. Unlike antithrombin, hirudin binds to and inhibits only the activated thrombin, with a specific activity on fibrinogen. Therefore, hirudin prevents or dissolves the formation of clots and thrombi (i.e., it has a thrombolytic activity), and has therapeutic value in blood coagulation disorders, in the treatment of skin hematomas and of superficial varicose veins, either as an injectable or a topical application cream. In some aspects, hirudin has advantages over more commonly used anticoagulants and thrombolytics, such as heparin, as it does not interfere with the biological activity of other serum proteins, and can also act on

complexed thrombin.

Protein Information

Name	HIRUD
Function	Hirudin is a potent thrombin-specific protease inhibitor. It forms a stable non-covalent complex with alpha-thrombin, thereby abolishing its ability to cleave fibrinogen.
Cellular Location	Secreted {ECO:0000269|Ref.1}.