

AaH II Protein, Androctonus australis, Recombinant (His & SUMO)

General Information

Synonyms:	Neurotoxin II (Toxin II); Alpha-mammal toxin AaH2; AaH II (AaHII)
Protein Construction:	20-83 aa
Species:	Androctonus australis
Expression Host:	E. coli
Accession:	P01484
Molecular Weight:	23.3 kDa (predicted)
AA Sequence:	VKDGIVDDVNCTYFCGRNAYCNEECTKLKGESGYCQWASPYGNACYCYKLPDHSVTKGPGRCH

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Alpha toxins bind voltage-independently at site-3 of sodium channels (Nav) and inhibit the inactivation of the activated channels, thereby blocking neuronal transmission. The toxin principally slows the inactivation process of TTX-sensitive sodium channels. It is active on rat brain Nav1.2/SCN2A sodium channel (EC(50)=2.6 nM) and on rat skeletal muscle Nav1.4/SCN4A sodium channel (EC(50)=2.2 nM), as well as on human neuronal Nav1.7/SCN9A (EC(50)=6.8 nM). This toxin is active against mammals. In vivo, intraplantar injection into mice induces spontaneous pain responses.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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