

Asporin Protein, Human, Recombinant (His & SUMO)

General Information

Synonyms:	SLRR1C;Periodontal ligament-associated protein 1 (PLAP-1);ASPN;PLAP1;Asporin
Protein Construction:	33-380 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q9BXN1
Molecular Weight:	55.7 kDa (predicted)
AA Sequence:	DMEDTDDDDDDDDDDDDDEDNSLFPTREPRSHFFPDLFPMCPFGCQCYSRVVHCSDLGLTSVPTNIPFD TRMLDLQNNKIKEIKENDFKGLTSLYGLILNKKLTKIHPKAFLLTKLRRLYLSHNQLSEIPLNLPKSLAELRIH ENKVKKIQKDTFKGMNALHVLEMSANPLDNNNGIEPGAFEGVTVFHIRIAEAKLTSVPKGLPPTLLELHLDYNNKI STVELEDFKRYKELQRLGLGNNKITDIENGLANIPRVREIHLNENKLLKIPSGLPKYLQIIFLHNSIARVGVN DFCPTVPKMKKSLSAISLFNNPVKYWEMQPATFRCVLSRMSVQLGNFGM

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

Negatively regulates periodontal ligament (PDL) differentiation and mineralization to ensure that the PDL is not ossified and to maintain homeostasis of the tooth-supporting system. Inhibits BMP2-induced cytodifferentiation of PDL cells by preventing its binding to BMP1B/BMP type-1B receptor, resulting in inhibition of BMP-dependent

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activation of SMAD proteins. Critical regulator of TGF-beta in articular cartilage and plays an essential role in cartilage homeostasis and osteoarthritis (OA) pathogenesis. Negatively regulates chondrogenesis in the articular cartilage by blocking the TGF-beta/receptor interaction on the cell surface and inhibiting the canonical TGF-beta/Smad signal. Binds calcium and plays a role in osteoblast-driven collagen biomineralization activity.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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