

Datasheet for ABIN7562356

## HAP1 Protein (AA 1-628) (His tag)



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### Overview

Quantity:	1 mg
Target:	HAP1
Protein Characteristics:	AA 1-628
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HAP1 protein is labelled with His tag.

### Product Details

Purpose:	Custom-made recombinant Hap1 Protein expressed in mammalian cells.
Sequence:	<p>MRPKEQVQSG AGDGTGSGDP AAGTPTTQPA VGPAPEPSAE PKPAPAQGTG SGQKSGSRTK</p> <p>TGSFCRSMII GDSDAPWTRY VFQGPYPRA TGLGTGKAEG IWKTPAAYIG RRPVSGPER</p> <p>AAFIRELQEA LCPNPPPTKK ITEDDVKVML YLLEEKERDL NTAARIGQSL VKQNSVLMEE</p> <p>NNKLETMLGS AREEILHLRK QVNLRDDLLQ LYSDSDDDDD EEDEEDEEEG EEEEREGQRD</p> <p>QDQQHDHPYG APKPHPKAET AHRCPQLETL QQKLRLLEE NDHLREEASH LDNLEDEEQM</p> <p>LILECVEQFS EASQQMAELS EVLVLRLLEGY ERQQKEITQL QAEITKLQQR CQSYGAQTEK</p> <p>LQQMLASEKG IHSESLRAGS YMQDYGSRPR DRQEDGKSHR QRSSMPAGSV THYGYSVPLD</p> <p>ALPSFPETLA EELRTSLRKF ITDPAYFMER RDTHCREGRK KEQRAMPPPP AQDLKPPEDF</p> <p>EAPPELVPEE ELGAIEEVGT AEDGQAEENE QASEETEAW EPEVEDETT RMNVVWSALE</p> <p>ASGLGPSHLD MKYVLQQLSN WQDAHSKRQQ KQKVVPKDSP TPQQQTNMGG GILEQQPRVP</p> <p>TQDSQRLEED RATHSPSARE EEGPSGAT <b>Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the</b></p>

## Product Details

**protein could make another tag necessary. In case you have a special request, please contact us.**

**Specificity:** If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

**Characteristics:** Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

**Purity:** > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

**Grade:** custom-made

## Target Details

**Target:** HAP1

**Alternative Name:** Hap1 ([HAP1 Products](#))

**Background:** Huntingtin-associated protein 1 (HAP-1),FUNCTION: Originally identified as neuronal protein that specifically associates with HTT/huntingtin and the binding is enhanced by an expanded polyglutamine repeat within HTT possibly affecting HAP1 interaction properties. Both HTT and HAP1 are involved in intracellular trafficking and HAP1 is proposed to link HTT to motor proteins and/or transport cargos. Seems to play a role in vesicular transport within neurons and axons such as from early endosomes to late endocytic compartments and to promote neurite outgrowth. The vesicular transport function via association with microtubule-dependent transporters can be attenuated by association with mutant HTT. Involved in the axonal transport of BDNF and its activity-dependent secretion, the function seems to involve HTT,

## Target Details

DCTN1 and a complex with SORT1. Involved in APP trafficking and seems to facilitate APP anterograde transport and membrane insertion thereby possibly reducing processing into amyloid beta. Involved in delivery of gamma-aminobutyric acid (GABA(A)) receptors to synapses, the function is dependent on kinesin motor protein KIF5 and is disrupted by HTT with expanded polyglutamine repeat. Involved in regulation of autophagosome motility by promoting efficient retrograde axonal transport. Seems to be involved in regulation of membrane receptor recycling and degradation, and respective signal transduction, including GABA(A) receptors, tyrosine kinase receptors, EGFR, IP3 receptor and androgen receptor. Among others suggested to be involved in control of feeding behavior (involving hypothalamic GABA(A) receptors), cerebellar and brainstem development (involving AHI1 and NTRK1/TrkA), postnatal neurogenesis (involving hypothalamic NTRK2/TrkB regulating the number of Npyr1-expressing cells), and ITPR1/InsP3R1-mediated Ca(2+) release (involving HTT and possibly the effect of mutant HTT). Via association with DCTN1/dynactin p150-glued and HTT/huntingtin involved in cytoplasmic retention of REST in neurons. May be involved in ciliogenesis, however, reports are conflicting: PubMed:21985783 reports that Hap1 is required for ciliogenesis in primary cortical neurons and proposes that HTT interacts with PCM1 through HAP1, PubMed:23532844 reports that mice with disrupted Hap1 display normal cilium formation and function. Involved in regulation of exocytosis. Isoform A but not isoform B seems to be involved in formation of cytoplasmic inclusion bodies (STBs). In case of anomalous expression of TBP, can sequester a subset of TBP into STBs, sequestration is enhanced by an expanded polyglutamine repeat within TBP. {ECO:0000269|PubMed:12890790, ECO:0000269|PubMed:15379999, ECO:0000269|PubMed:17868456, ECO:0000269|PubMed:18636121, ECO:0000269|PubMed:21985783, ECO:0000269|PubMed:24355921, ECO:0000269|PubMed:24366265, ECO:0000269|PubMed:24453320}.

Molecular Weight:	70.1 kDa
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UniProt:	<a href="#">O35668</a>
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Pathways:	<a href="#">Cell RedoxHomeostasis</a> , <a href="#">Smooth Muscle Cell Migration</a> , <a href="#">Positive Regulation of Response to DNA Damage Stimulus</a>
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## Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months