

Datasheet for ABIN7564708
DACT1 Protein (AA 1-778) (His tag)



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Overview

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|-------------------------------|--|
| Quantity: | 1 mg |
| Target: | DACT1 |
| Protein Characteristics: | AA 1-778 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This DACT1 protein is labelled with His tag. |

Product Details

| | |
|-----------|--|
| Purpose: | Custom-made recombinant Dact1 Protein expressed in mammalian cells. |
| Sequence: | MKPDAAREPE PLSPGRGAEA EGRWRERGEA DTERQRTREER QEATLAGLAE LGYLRQRQEL LVRGALRCSG TVGTVAPRSG ELRGDAAQRS RLEEKFLEEN ILLRRQLNC LRRRDAGLLN QLQELDKQIS DLRLDVEKTS EEHLETDSRP SSGFYELSDG ASGSLSNSSN SVFSECLSSC HSSTCFCSPL EAALTISDGC PKSADVNPY QCDLVSKNGN DVYRYPSPH AVAVQSPMFL LCLTGNTLRE EEGLGSHASD ICIGSELNAT KTDNSLSPSPS SLWSASHPAS SKKMDGYILS LVQKKTHPVR TNKPRTSVNA DPTKGLLRNG SVCVRAPSGV PPGSSVNFKN TKQMCLPAGG ITSLENGPFS PPKQRSKDSK TDQLESKRLA LPESCSAGAA MEPQSKHVPK AKAASQELT RCQAGLGESM KESNQASAVS PKTSPGRGPV APAESKALQL PKKMSQKNSL QAVPALDRPA LDFKSEGSSQ SLEEGHLVKA QFIGPQQAAA RPHRAHRNPG VARSATLKAR GQAAMEHGLP TVREKPRAAG KKCRFPDDSD TNKKFRKTS KGRRSGLQD AGLPGRALGT GGHRAGSRAH AHGREPVVAK PKHKRTDYRR WKSSAEVSYE EALRRARRAR REHGAAYRVA VALPYASPYA YVPSDSEYSA ECESLFHSTV VDTSEDEQSN YTTNCFGDSE SSVSEGDVFG ESTTTSDSEE |

Product Details

SGGLIWSQFV QTLPIQTVTA PDLHTRPTKT FVKIKASHNL KKKILRFRSG SLKLMTTV **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the 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: DACT1

Alternative Name: Dact1 ([DACT1 Products](#))

Background: Dapper homolog 1 (Dapper antagonist of catenin 1) (Frodo homolog) (MDpr1) (Thymus-expressed novel gene 3 protein),FUNCTION: Involved in regulation of intracellular signaling pathways during development. Specifically thought to play a role in canonical and/or non-canonical Wnt signaling pathways through interaction with DSH (Dishevelled) family proteins. The activation/inhibition of Wnt signaling may depend on the phosphorylation status. Proposed to regulate the degradation of CTNNB1/beta-catenin, thereby modulating the transcriptional activation of target genes of the Wnt signaling pathway. Its function in stabilizing CTNNB1 may

Target Details

involve inhibition of GSK3B activity. Promotes the membrane localization of CTNNB1. The cytoplasmic form can induce DVL2 degradation via a lysosome-dependent mechanism, the function is inhibited by PKA-induced binding to 14-3-3 proteins, such as YWHAB (By similarity). Seems to be involved in morphogenesis at the primitive streak by regulating VANGL2 and DVL2, the function seems to be independent of canonical Wnt signaling and rather involves the non-canonical Wnt/planar cell polarity (PCP) pathway. The nuclear form may prevent the formation of LEF1:CTNNB1 complex and recruit HDAC1 to LEF1 at target gene promoters to repress transcription thus antagonizing Wnt signaling (By similarity). May be involved in positive regulation of fat cell differentiation. During neuronal differentiation may be involved in excitatory synapse organization, and dendrite formation and establishment of spines. {ECO:0000250, ECO:0000269|PubMed:17197390, ECO:0000269|PubMed:19073771, ECO:0000269|PubMed:19701191, ECO:0000269|PubMed:20145239, ECO:0000269|PubMed:20335472}.

Molecular Weight: 84.3 kDa

UniProt: [Q8R4A3](#)

Pathways: [Positive Regulation of fat Cell Differentiation](#)

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.

Restrictions: For Research Use only

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