

Product datasheet

Recombinant Human SMARCD1 protein ab159544

1 Image

Overview

Product name	Recombinant Human SMARCD1 protein
Protein length	Protein fragment

Description

Nature	Recombinant
Source	Wheat germ
Amino Acid Sequence	
Species	Human
Sequence	MGPAPGQGLYRSPMPGAAYPRPGMLPGSRMTPQGP SMGPPGYGGNPSVRP GLAQSGMDQSRKR
Amino acids	1 to 63
Tags	GST tag N-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab159544** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	ELISA Western blot
Form	Liquid
Additional notes	Protein concentration is above or equal to 0.05 mg/ml.

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 8.00 Constituents: 0.31% Glutathione, 0.79% Tris HCl
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General Info

Function

Involved in chromatin remodeling. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a post-mitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to post-mitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth (By similarity). Has a strong influence on the Vitamin D-mediated transcriptional activity from an enhancer Vitamin D receptor element (VDRE). May be a link between mammalian SWI-SNF-like chromatin remodeling complexes and the vitamin D receptor (VDR) heterodimer. Mediates critical interactions between nuclear receptors and the BRG1/SMARCA4 chromatin-remodeling complex for transactivation. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene.

Tissue specificity

Expressed in all tissues tested, including brain, heart, kidney, liver, lung, muscle, pancreas and placenta.

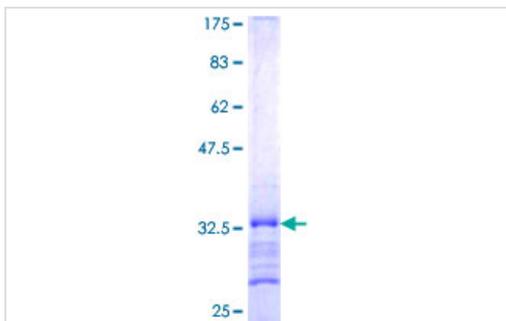
Sequence similarities

Belongs to the SMARCD family.
Contains 1 SWIB domain.

Cellular localization

Nucleus.

Images



ab159544 on a 12.5% SDS-PAGE stained with Coomassie Blue.

SDS-PAGE - Recombinant Human SMARCD1
protein (ab159544)

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