Recombinant SMARCA2 / BRM (1367-1511), GST-tag

Catalog No: 31481, 31781
Expressed In: *E. coli*

Quantity: 100 µg
Concentration: 3.5 µg/µl
Source: Human

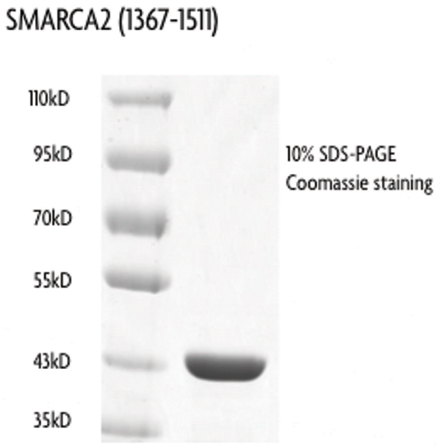
Buffer Contents: 100 µg of recombinant SMARCA2 / BRM (1367-1511), GST-tag protein expressed in *E. coli* at a concentration of 3.5 mg/ml in 25 mM Tris pH 7.4, 150 mM NaCl and 5% glycerol.

Background: SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 (SMARCA2), also known as **BRM**, is a member of the SWI/SNF family of proteins and is similar to the Brahma protein of *Drosophila*. Members of this family have helicase and ATPase activities and are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. SMARCA2 contains bromodomains for interaction with other proteins. The bromodomain functions as a 'reader' of epigenetic histone marks and regulates chromatin structure and gene expression by linking associated proteins to the recognized acetylated nucleosomal targets. SMARCA2 is involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR). SMARCA1 belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and the neuron-specific chromatin remodeling complex (nBAF complex). SMARCA2 plays a pivotal role in the regulation of the switch in subunit composition of the npBAF and nBAF complexes as cells transition from proliferating neural stem/progenitor cells to post-mitotic neurons during neural development.

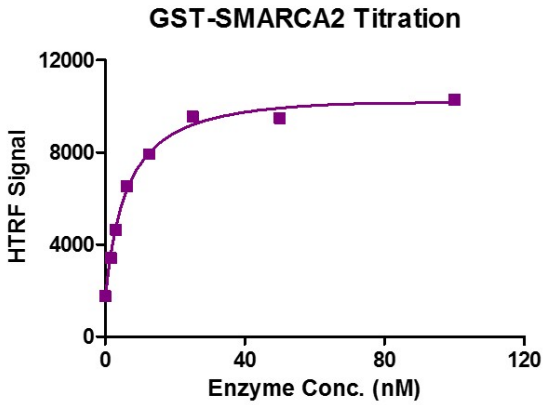
Protein Details: The peptide corresponding to amino acids 1367-1511 that contains the bromodomain sequences of SMARCA2 / BRM (accession number NP_003061.3) was expressed in *E. coli* and contains an N-terminal GST tag with an observed molecular weight of 44.2 kDa. It shows binding specificity for acetylated H3K9, H3K14, H3K9/14, H4K8, H4K12, H4K16 and H4K5/8/12/16. The recombinant protein is >95% pure by SDS-PAGE.

Application Notes: Recombinant SMARCA2 / BRM (1367-1511), GST-tag is suitable for use in binding assays, inhibitor screening, and selectivity profiling.

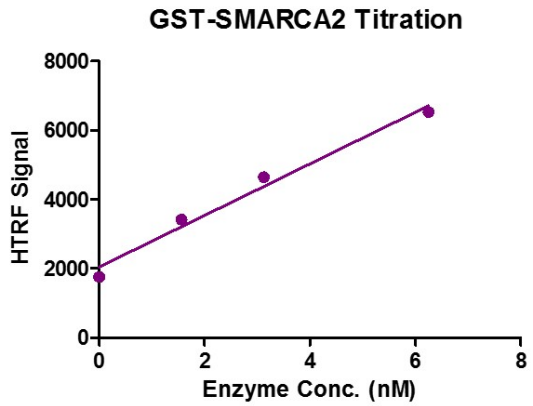
Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



Recombinant SMARCA2 / BRM (1367-1511), GST-tag protein gel.
SMARCA2 / BRM (1367-1511), GST-tag protein was run on an SDS-PAGE gel and stained with Coomassie blue.



Recombinant SMARCA2 / BRM (1367-1511) HTRF activity assay
3.3 µM histone peptide H4K5/8/12/16(4Ac) was incubated with SMARCA2 / BRM (1367-1511) protein in reaction buffer including 50 mM HEPES-NaOH pH 7.0, 0.1% BSA for 1 hour at room temperature. Anti-GST antibody was used to detect reaction products.



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