

## Recombinant Human SMARCA2 Protein, GST-tagged

Cat. No. SMARCA2-195H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Human recombinant SMARCA2a bromodomain (residues 1367-1511) expressed as an N-terminal GST-fusion protein in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ProteinLength</b>    | 1367-1511                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | <p>The protein encoded by this gene is a member of the SWI/SNF family of proteins and is highly 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. The encoded protein is part of the large ATP-dependent chromatin remodeling complex SNF/SWI, which is required for transcriptional activation of genes normally repressed by chromatin. Alternatively spliced transcript variants encoding different isoforms have been found for this gene, which contains a trinucleotide repeat (CAG) length polymorphism.</p> |
| <b>Molecular Mass</b>   | 43.9 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Purity</b>           | >95% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Storage</b>          | -70 centigrade. Thaw quickly and store on ice before use. The remaining, unused, undiluted protein should be snap frozen, for example in a dry/ice ethanol bath or liquid nitrogen. Minimize freeze/thaws if possible, but very low volume aliquots (<5 µL) or                                                                                                                                                                                                                                                                                                                                                                                                                               |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

storage of diluted protein is not recommended.

**Storage Buffer**

Solution of purified recombinant protein in 50 mM Tris/HCl, pH 7.5, 500 mM NaCl, 1 mM TCEP, 10% glycerol (v/v)

## GENE INFORMATION

**Gene Name**

SMARCA2 SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2 [ Homo sapiens (human) ]

**Official Symbol**

SMARCA2

**Synonyms**

SMARCA2; SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2; BRM; SNF2; SWI2; hBRM; NCBRS; Sth1p; BAF190; SNF2L2; SNF2LA; hSNF2a; probable global transcription activator SNF2L2; ATP-dependent helicase SMARCA2; BAF190B; BRG1-associated factor 190B; SNF2-alpha; SNF2/SWI2-like protein 2; SWI/SNF-related matrix-associated actin-dependent regulator of chromatin a2; brahma homolog; global transcription activator homologous sequence; protein brahma homolog; sucrose nonfermenting 2-like protein 2

**Gene ID**

6595

**mRNA Refseq**

NM\_003070

**Protein Refseq**

NP\_003061

**MIM**

600014

**UniProt ID**

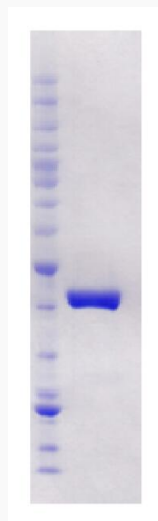
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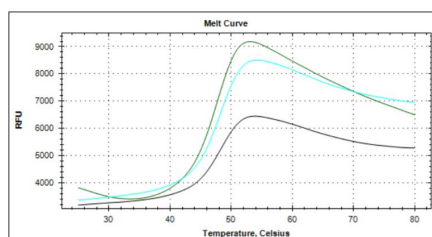
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## SDS-PAGE



Coomassie blue-stained SDS-PAGE (4-12% acrylamide) of 4µg of RBC SMARCA2a (GST). MW markers (left) are, from top, 220, 160, 120, 100, 90, 80, 70, 60, 50, 40, 30, 25, 20, 15, 10 kDa.

## Differential Scanning Fluorimetry of RBC SMARCA2a (GST) in presence or absence of common bromodomain ligands.



Thermal denaturation of SMARCA2a (GST) is detected by increased binding and fluorescence of the dye SYPRO®Orange. Addition of 25 µM CBP112 (black) and BET151 (turquoise) stabilizes the protein folding and shifts the T<sub>m</sub> (inflection point) from 47.5 to 48.5 centigrade.

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