

Product Name

Monoclonal human Anti-SWI/SNF-related matrix-associated actin-dependent regulator of chromatin a4 isoform B Immunoglobulin

CAT No.

MQR 2.2201

LOT No.

18283

Quantity

100 µg

Edition: September 4, 2019

Intended use

This product is for research use only. NOT for use in diagnostic or therapeutic procedures.

This product is tested for use in enzyme-linked immunosorbent assay (ELISA) and immunoprecipitation (IP).

Reagent provided

The antibody is supplied in PBS.

Isotype

Human IgG1κ

Immunogen

SWI/SNF-related matrix-associated actin-dependent regulator of chromatin a4 isoform B. Domain: 1451-1580 of 1647, bromodomain.

Specificity

Specificity has been tested in ELISA (figure 1) and IP-MS.

Purity

Protein A purified.

Disclaimer

The antibody is for R&D use only. NOT for use in diagnostic or therapeutic procedures.

Precautions

1. For professional users.
2. As with any product derived from biological sources, proper handling procedures should be used.
3. The product may be used in different techniques and in combination with different sample types and materials, therefore each individual laboratory should validate the applied test system.

Preparation of the antibody

Use antibody as supplied.

Storage/Stability

Store at -20°C. After first time use, store at 4°C. Avoid repeated freeze-thaw cycles.

Application guidelines

ELISA: 1:1000 – 1:5000

IP: 2 µg/ml

Other applications: since applications vary, optimum working dilution of the product should be determined in the appropriate assay.

Unless the stability in the actual test system has been established, it is recommended to dilute the product immediately before use.

Relevance

Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Component of SWI/SNF chromatin remodeling complexes that carry out key enzymatic activities, changing chromatin structure by altering DNA-histone contacts within a nucleosome in an ATP-dependent manner. Component of the CREST-BRG1 complex, a multiprotein complex that regulates promoter activation by orchestrating the calcium-dependent release of a repressor complex and the recruitment of an activator complex. In resting neurons, transcription of the c-FOS promoter is inhibited by SMARCA4-dependent recruitment of a phospho-RB1-HDAC repressor complex. Upon calcium influx, RB1 is dephosphorylated by calcineurin, which leads to release of the repressor complex. At the same time, there is increased recruitment of CREBBP to the promoter by a CREST-dependent mechanism, which leads to transcriptional activation. The CREST-BRG1 complex also binds to the NR2B promoter, and activity-dependent induction of NR2B expression involves the release of HDAC1 and recruitment of CREBBP. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and the neuron-specific chromatin remodeling complex (nBAF complex).¹

SMARCA4 antibody

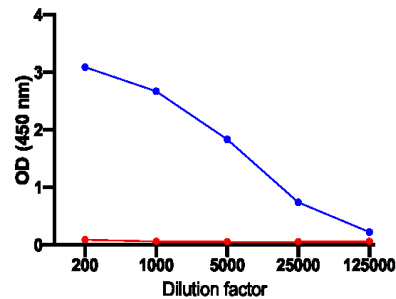


Figure 1: Specificity of anti-SMARCA4 (MQR2.2201), determined by ELISA. Antibody stock 0.51 mg/ml diluted in PBS containing 0.05% tween-20 and 1% BSA was tested on human SWI/SNF-related matrix-associated actin-dependent regulator of chromatin a4 isoform B (in blue) and non-target protein (in red).

References

- 1) <https://www.uniprot.org/uniprot/P51532>