

Recombinant Mouse ARI5A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51588

Size: 10ug, 100ug

Protein Name: AT-rich interactive domain-containing protein 5A (ARID domain-containing protein 5A)

Synonym: Arid5a

UniProt ID: Q3U108

UniProt Link: www.uniprot.org/uniprotkb/Q3U108/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 590 AA

Molecular Weight: 64 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAAPPAKGNTEQSEEGDLPQLPVSPKPDDEQSRQSPTQLQDSPEAGGEQEEEAFLVSLYKFMK
ERHTPIERVPHLGFKQINLWKIYKAVEKLGAYELVTGRRLWKNVYDELGGSPGSTSAATCTRRHYER
LVLPPYVRHLKGEDDKPLPPTKPRKQYKMAKELRGDDGTTEKLKKAKDSEERRVEQTTPGKTKSDAT
GQTQLPCQGSSRDSTEQLGPVSGPSPPLTGASSCPEAYKRLLSSFYCKGAHGIMSPLAKKKLLAQV
SKAEALQCQEEGCRHGARSPNKDIQDSPQNLRGPAENSEHQLTPREGLQAPGGSTRMEAQVGPC
PTAPMFSGCFHAYPTEVLKPVSQHPRDFFSGLKDRVLLGPPGKEEGPTTKESHLVWGGDANHPSA
FHKGSTRKRSFYKPKACWVSPMAKVPTERPGAPSPHPSSPGLGSKRGLEEEGFAGGGKKLRAVS
PFLKEVDSKETGGKPAAPGLAVSCLLGPTPGPTPEAYRGTMRLCPLNFTGSADPLKGQASLPFSPL
VIPAFPAHLLATTGSSPMAASLMHFPPTYDAVLRNRLGPASSAWHMPPVTTYAAPHHFHLNTKL

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant AT-rich interactive domain-containing protein 5A (ARID domain-containing protein 5A) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: DNA-binding protein that may regulate transcription and act as a repressor by binding to AT-rich stretches in the promoter region of target genes (By similarity). May positively regulate chondrocyte-specific transcription such as of COL2A1 in collaboration with SOX9 and positively regulate histone H3 acetylation at chondrocyte-specific genes. May stimulate early-stage chondrocyte differentiation and inhibit later stage differentiation (PubMed:21346191). Can repress ESR1-mediated transcriptional activation; proposed to act as corepressor for selective nuclear hormone receptors (By similarity). As an RNA-binding protein, involved in the regulation of inflammatory response by stabilizing selective inflammation-related mRNAs, such as STAT3 and TBX21. Also stabilizes IL6 mRNA. Binds to stem loop structures located in the 3'UTRs of IL6, STAT3 and TBX21 mRNAs; at least for STAT3 prevents binding of ZC3H12A to the mRNA stem loop structure thus inhibiting its degradation activity. Contributes to elevated IL6 levels possibly implicated in autoimmunity processes. IL6-dependent stabilization of STAT3 mRNA may promote differentiation of naive CD4⁺ T-cells into T-helper Th17 cells (PubMed:23676272, PubMed:27022145). In CD4⁺ T-cells may also inhibit RORC-induced Th17 cell differentiation independently of IL6 signaling (PubMed:24782182). Stabilization of TBX21 mRNA contributes to elevated interferon-gamma secretion in Th1 cells possibly implicated in the establishment of septic shock (PubMed:27671645). Stabilizes TNFRSF4/OX40 mRNA by binding to the conserved stem loop structure in its 3'UTR; thereby competing with the mRNA-destabilizing functions of RC3H1 and endoribonuclease ZC3H12A (PubMed:29244194).

Subcellular Localization: Nucleus .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.