

# Recombinant Human ARI5A Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP50045

Size: 10ug, 100ug

Protein Name: AT-rich interactive domain-containing protein 5A (ARID domain-containing protein 5A) (Modulator recognition factor 1) (MRF-1)

Synonym: ARID5A, MRF1

UniProt ID: Q03989

UniProt Link: [www.uniprot.org/uniprotkb/Q03989/entry](http://www.uniprot.org/uniprotkb/Q03989/entry)

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 594 AA

Molecular Weight: 64 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MAAPVKGNRKQSTEGDALDPPASPKPAGKQNGIQNPISLEDSP EAGGEREEEEQEREEEAFLVSLY  
KFMKERHTPIERVPHLGFKQINLWKIYKAVEKLGAYELVTGRRLWKNVYDELGGSPGSTSAATCTRR  
HYERLVLPYVRHLKGEDDKPLPTSKPRKQYKMAKENRGDDGATERPKKAKEERRMDQMMPGKTK  
ADAADPAPLPSQEPPRNSTEQQGLASGSSVSFVGASGCPEAYKRLLSSFYCKGTHGIMSPLAKKKL  
LAQVSKVEALQCQEEGCRHGAEPQASPAVHLPESPQSPKGLTENSRLHRLTPQEGQLAPGGSLREE  
AQAGPCPAAPIFKGC FYTHPTVLKPVSQHPRDFFSRLKDG VLLGPPGKEGLSVKEPQLVWGGDAN  
RPSAFHKGGSRK GILYPKPKACWVSPMAKVPAESPTLPPTFPSSPGLGSKRSLEEEGAHSGKRLR  
AVSPFLKEADAKKCGAKPAGSGLVSCLLGPALGPVPEAYRG TMLHCPLNFTGTGPGPLKGQAALPF  
SPLVIPAFPAHFLATAGPSPMAAGLMHFPPTSFD SALRHRLCPASSAWHAPPVTTYAAPHHFHLNTK  
L

## 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) (Modulator recognition factor 1) (MRF-1) 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 (PubMed:8649988). 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 (By similarity). Can repress ESR1-mediated transcriptional activation; proposed to act as corepressor for selective nuclear hormone receptors (PubMed:15941852). As an RNA-binding protein, involved in the regulation of inflammatory response by stabilizing selective inflammation-related mRNAs, such as STAT3 and TBX21 (By similarity). Also stabilizes IL6 mRNA (PubMed:32209697). 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<sup>+</sup> T-cells into T-helper Th17 cells. In CD4<sup>+</sup> T-cells may also inhibit RORC-induced Th17 cell differentiation independently of IL6 signaling. Stabilization of TBX21 mRNA contributes to elevated interferon-gamma secretion in Th1 cells possibly implicated in the establishment of septic shock (By similarity). 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 (By similarity).

**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.