Recombinant ARAID protein (His tag)

Catalog Number	545236
Synonyms	Apoptosis-related protein 3; APR-3; p18
Species	Human
Expression System	E. coli
Accession	Q6UW56
Molecular Weight	Predictes a molecular mass of 20.06 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	31-199
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 31-199 aa (Q6UW56) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human ATRAID/APR-3 (31-199) Fragment - A high-quality recombinant protein fragment encompassing the EGF-like domain (residues 152-193) of All-trans retinoic acid-induced differentiation factor. This fragment serves as an essential tool for investigating domain-specific functions in osteoblast differentiation, cell cycle regulation, and bisphosphonate transport mechanisms. The full-length ATRAID protein (also known as APR-3 or p18) plays crucial roles in cellular differentiation and signaling pathways. It promotes osteoblast cell differentiation and terminal mineralization, while also contributing to cell cycle arrest through inhibition of CCND1 expression in the all-trans-retinoic acid (ATRA) signaling pathway. In osteoclasts, ATRAID forms a transporter complex for nitrogen-containing bisphosphonates (N-BPs), facilitating the release of N-BP molecules from lysosomes into the cytosol. The protein exhibits complex subcellular localization, including the nuclear envelope, cell membrane (as a single-pass membrane protein), and lysosome membrane (as a multi-pass membrane protein), where it colocalizes with NELL1 in the perinuclear region. This strategic localization supports its diverse functions in cellular differentiation and signaling processes.