Recombinant MAGF1 protein (His tag)

Catalog Number	549652
Synonyms	MAGE-F1; MAGE-F1 antigen
Species	Human
Expression System	E. coli
Accession	Q9HAY2
Molecular Weight	Predictes a molecular mass of 31.15 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	56-307
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 56-307 aa (Q9HAY2) 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 Melanoma-associated antigen F1 (MAGE-F1) fragment (amino acids 56-307) is a high-purity protein designed for functional studies. This fragment fully encompasses the MAGE domain, making it an ideal tool for investigating domain-specific roles in ubiquitin ligase regulation, DNA repair inhibition, and genome integrity pathways. Melanoma-associated antigen F1 (MAGE-F1), encoded by the MAGEF1 gene, enhances the ubiquitin ligase activity of RING-type zinc finger-containing E3 ubiquitin ligases. It functions by recruiting and/or stabilizing the E2 ubiquitin-conjugating enzyme at the E3:substrate complex. The MAGEF1-NSMCE1 ubiquitin ligase complex promotes proteasomal degradation of MMS19, a key component of the cytosolic iron-sulfur protein assembly (CIA) machinery. This down-regulation impairs the activity of DNA repair and metabolism enzymes such as ERCC2/XPD, FANCJ, RTEL1, and POLD1, which require iron-sulfur clusters as cofactors. MAGE-F1 may negatively regulate genome integrity by inhibiting homologous recombination-mediated double-strand break DNA repair, highlighting its significance in cellular processes and potential implications in disease mechanisms.