Recombinant DMB protein (His tag)

Catalog Number	544528
Synonyms	MHC class II antigen DMB; Really interesting new gene 7 protein
Species	Human
Expression System	E. coli
Accession	P28068
Molecular Weight	Predictes a molecular mass of 24.03 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	19-218
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 19-218 aa (P28068) 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 HLA-DMB Fragment (aa 19-218) - A high-purity recombinant protein fragment encompassing the Ig-like C1-type domain of Human HLA class II histocompatibility antigen, DM beta chain. This fragment serves as an essential tool for studying MHC class II antigen presentation mechanisms and CLIP peptide release. The full-length HLA-DMB protein plays a critical role in the immune system by catalyzing the release of class II-associated invariant chain peptide (CLIP) from newly synthesized MHC class II molecules. This activity is essential for freeing the peptide binding site, allowing acquisition of antigenic peptides and proper antigen presentation. In B-cells, the interaction between HLA-DM and MHC class II molecules is regulated by HLA-DO. The protein localizes to late endosome and lysosome membranes as a single-pass type I membrane protein, where it functions in the late endocytic compartment. This strategic localization enables its role in the MHC class II antigen processing pathway, making it a key regulator of adaptive immune responses.