Recombinant DOB protein (His tag)

Catalog Number	537531
Synonyms	MHC class II antigen DOB
Species	Human
Expression System	E. coli
Accession	P13765
Molecular Weight	Predictes a molecular mass of 24.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	31-224
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 31-224 aa (P13765) 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-DOB (31-224) Fragment: A high-purity, functional fragment of the HLA class II histocompatibility antigen, DO beta chain, designed to encompass the Ig-like C1-type domain. This product is an essential tool for studying HLA-DM-mediated peptide exchange modulation in antigen presentation pathways. The full-length HLA-DOB protein, encoded by the HLA-DOB gene in humans, is a key modulator in the HLA class II restricted antigen presentation pathway. It functions by interacting with the HLA-DM molecule in B-cells, where it modifies HLA-DM's peptide exchange activity. The protein is localized to endosome and lysosome membranes as a single-pass type I membrane protein, forming complexes with HLA-DM during intracellular transport and in endosomal/lysosomal compartments. Heterotetramerization is required for its exit from the endoplasmic reticulum, highlighting its critical role in immune regulation.