Technical Data Sheet

Recombinant Human β2 Microglobulin

Product Information

Material Number: 551089
Size: 0.1 mg
Concentration: 0.5 mg/ml
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The major histocompatibility complex (MHC) gene locus encodes a group of highly polymorphic, cell surface proteins that play a broad role in the immune response to protein antigens. MHC molecules function by binding and presenting small antigenic protein fragments to antigen-specific receptors expressed by T cells (TCR). Class I MHC molecules consist of two separate polypeptide chains. The class I α chain is an MHC encoded, transmembrane polypeptide containing three extracellular domains: α1, α2 and α3. The second chain consists of a non-MHC encoded, 12 kD polypeptide called β2 microglobulin (β2M). Since β2M does not contain a transmembrane domain, it associates with the α chain through non-covalent interaction. This association is important for the stability of the MHC class I structure, its peptide-loading and its ability to present peptide antigen to CD8+ T cells. β2M is relatively invariant within each species. For example, human β2M is reported to have high affinity for human and mouse MHC class I heavy chains.

Human β2 Microglobulin recombinant protein was expressed in insect cells. The expressed protein was purified by a combination of ion-exchange and gel-filtration methods.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References