Data Sheet (Cat.No.TMPS-00123)

TargetMol

SCF Protein, Mouse, Recombinant (Yeast)

General Information

Synonyms: Steel Factor;C-Kit Ligand;Mast Cell Growth Factor;Stem cell factor;Kit ligand;MGF

Protein Construction: Lys26-Ala189

Species: Mouse

Expression Host: P. pastoris (Yeast)

Accession: P20826

Molecular Weight: ~18.4 kDa (Reducing conditions)

QC Testing

Biological Activity: ED 50 < 10.0 ng/ml, measured by a cell proliferation assay using human TF-1 cells, corresponding to a specific activity of > 1.0 × 10 5 units/mg.

Purity: > 95% as determined by SDS-PAGE; > 95% as determined by HPLC

Endotoxin: < 0.2 EU/μg of protein as determined by the LAL method.

Formulation: Lyophilized after extensive dialysis against 50 mM Tris, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Stem cell factor (also known as SCF, KIT-ligand, KL, or steel factor) is a cytokine that binds to the c-KIT receptor (CD117). SCF can exist both as a transmembrane protein and a soluble protein. It stimulates the proliferation of myeloid, erythroid, and lymphoid progenitors in bone marrow cultures and has been shown to act synergistically with colony stimulating factors. SCF plays an important role in the hematopoiesis during embryonic development. SCF can regulates HSCs in the stem cell niche in the bone marrow. SCF has been shown to increase the survival of HSCs in vitro and contributes to the self-renewal and maintenance of HSCs in-vivo.

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