Data Sheet (Cat.No.TMPY-03968)

TargetMol

Secretogranin II Protein, Human, Recombinant (His)

General Information

Synonyms:	EM66;SgII;SN;CHGC;secretogranin II
Protein Construction:	A DNA sequence encoding the human SCG2 (AAH22509.1) (Met1-Met617) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Pro 17
Species:	Human
Expression Host:	HEK293 Cells
Accession:	AAH22509.1
Molecular Weight:	70.5 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

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

Kit ligand, also known as Hematopoietic growth factor KL, Mast cell growth factor, Steel factor, Stem cell factor, c-Kit ligand, Kitlg and KITL, is a single-pass type I membrane protein that belongs to the SCF family. KITL / kit ligand also belongs to the family of dimeric transmembrane growth factors. The soluble form of KIT ligand is a secreted protein. Mast cells are thought to participate in a variety of immune responses, such as parasite resistance and the allergic reaction. Mast cell development depends on stem cell factor (Kit ligand) and its receptor, c-Kit. KITL / kit

ligand stimulates the proliferation of mast cells. KITL / kit ligand is able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. Efficient cell surface presentation of KITL / kit ligand is essential for the migration, proliferation, and survival of melanocytes, germ cells, hemopoietic stem cells, and mastocytes. KITL / kit ligand acts synergistically with other cytokines, probably interleukins. KITL / kit ligand plays a crucial role in the development and maintenance of the melanocyte lineage in adult skin. It exerts permanent survival, proliferation and migration functions in Kit receptor-expressing melanocytes. KITL / kit ligand misexpression in some hyperpigmented lesions may open the avenue for Kitl-dependent treatment of pathological skin conditions.

Reference

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Paulhe,F. et al., 2004,J Biol Chem. 279 (53):55545-55.
Fernandez,S.M. et al., 2008,Biol Reprod. 79 (2):318-27.
Wehrle-Haller,B. et al., 2003,Pigment Cell Res.16 (3):287-96.