Data Sheet (Cat.No.TMPJ-00926)

TargetMol

GCA Protein, Human, Recombinant (GST)

General Information

Synonyms:	GCA;Grancalcin;GCL
Protein Construction:	Met1-Ile217
Species:	Human
Expression Host:	E. coli
Accession:	P28676
Molecular Weight:	50 KDa (reducing condition)
AA Sequence:	Met1-Ile217

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris-HCl, 4% Sucrose, 4% Mannitol, 0.02% Tween 80 (w/v), pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled 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:

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

Grancalcin (GCA) is a member of the penta EF hand subfamily which includes sorcin, calpain and ALG2. Grancalcin is highly expressed bone marrow and also can detected in neutrophils and macrophages. Grancalcin interacts with L-plastin which known to have actin bundling activity. It indicates that Grancalcin may play an important role in the adhesion of neutrophils to fibronectin. Furthermore, Grancalcin localization is dependent upon calcium and magnesium. It associates with both the granule and membrane fractions, which suggested a role for grancalcin in

granule-membrane fusion and degranulation.

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