

Recombinant Human Grancalcin, EF-hand Calcium Binding Protein, His-tagged

Cat. No. GCA-4382H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GCA produced in E.Coli is a single, non-glycosylated polypeptide chain containing 237 amino acids (1-217.a.) and having a molecular mass of 26.1kDa. GCA is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.
Species	Human
Source	Human
ProteinLength	1-217 a.a.
Description	GCA is calcium-binding protein which is particularly abundant in human neutrophils. GCA is a member of the penta EF-hand (PEF) subfamily of EF-hand proteins, who also comprises calpain, sorcin, peflin, and ALG-2. GCA undergoes essential conformational changes upon binding of calcium, which subsequently exposes hydrophobic amino acid residues, that direct the protein to hydrophobic surfaces. GCA cooperates with L-plastin, a protein known to have actin bundling activity, which suggests that GCA has a part in the regulation of neutrophils adhesion.
Form	The GCA protein solution (1mg/1ml) is formulated in 20mM Tris-HCl buffer (pH8.0) 0.1M NaCl and 20% glycerol.
Purity	Greater than 95% as determined by SDS-PAGE.

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Physical Appearance	Sterile Filtered clear solution.
Amino acid sequence	MGSSHHHHHH SSGLVPRGSH MAYPGYGGGF GNFSIQVPGM QMGQVPVETG PAILLDGYSG PAYSPTYSSA GDSVYTYFSA VAGQDGEVDA EELQRCLTQS GINGTYSPTS LETCRIMIAM LDRDHTGKMG FNAFKELWAA LNAWKENFMT VDQDGSSTVE HHELRLAIGL MGYRLSPQTL TTIVKRYSKN GRIFFDDYVA CCVKLRALTD FFRKRDHLQQ GSANFIYDDF LQGTMAI
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Please avoid freeze thaw cycles.
Pathways	Insulin signaling pathway; mTOR signaling pathway
GENE INFORMATION	
Gene Name	GCA grancalcin, EF-hand calcium binding protein [Homo sapiens]
Official Symbol	GCA
Synonyms	GCA; grancalcin, EF-hand calcium binding protein; GCL; grancalcin; OTTHUMP00000204639; OTTHUMP00000204640; grancalcin, penta-EF-hand protein; grancalcin, EF-hand calcium-binding protein
Gene ID	25801
mRNA Refseq	NM_012198
Protein Refseq	NP_036330
MIM	607030

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UniProt ID	P28676
Chromosome Location	2q37.1
Function	calcium ion binding; protein homodimerization activity

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