

Product datasheet

Recombinant human Granulin protein ab113403

1 Image

Description

Product name	Recombinant human Granulin protein
Biological activity	Activates ERK phosphorylation in THP-1 and MCF10A cells and induces cell migration of THP-1 monocytic leukemia cells.
Purity	> 90 % SDS-PAGE. Sterile filtered solution. >90% pure by SDS-PAGE and HPLC analysis.
Endotoxin level	< 0.100 Eu/μg
Expression system	HEK 293 cells
Accession	P28799
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	88 kDa
Tags	DDDDK tag C-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab113403** in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Form	Lyophilized
Additional notes	Endotoxin Level: <0.1 ng/μg

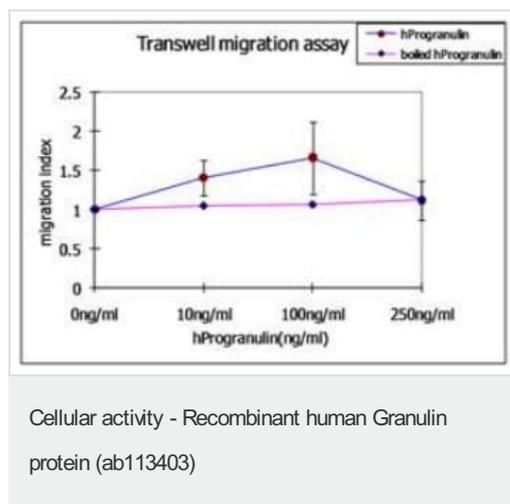
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Constituent: 99% PBS This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute with sterile water.

General Info

Function	Granulins have possible cytokine-like activity. They may play a role in inflammation, wound repair, and tissue remodeling. Granulin-4 promotes proliferation of the epithelial cell line A431 in culture while granulin-3 acts as an antagonist to granulin-4, inhibiting the growth.
Tissue specificity	In myelogenous leukemic cell lines of promonocytic, promyelocytic, and proerythroid lineage, in fibroblasts, and very strongly in epithelial cell lines. Present in inflammatory cells and bone marrow. Highest levels in kidney.
Involvement in disease	Defects in GRN are the cause of ubiquitin-positive frontotemporal dementia (UP-FTD) [MIM:607485]; also known as tau-negative frontotemporal dementia linked to chromosome 17. Frontotemporal dementia (FTD) is the second most common cause of dementia in people under the age of 65 years. It is an autosomal dominant neurodegenerative disease.
Sequence similarities	Belongs to the granulin family.
Post-translational modifications	Granulins are disulfide bridged.
Cellular localization	Secreted.

Images



Chemotaxis effect of Recombinant human Granulin protein in THP-1 Cells: Cell migration of THP-1 monocytic leukemia cells was evaluated in disposable 24 well transwell polystyrene membrane with 8µm size pores. 0ng/ml, 10ng/ml, 100ng/ml and 250ng/ml of Granulin protein were diluted in RPMI 1640 supplemented with 0.5% FBS respectively. In case boiled Granulin protein were boiled at 100°C for 10min. And then Granulin protein samples were added to the lower chamber. THP-1 cells (2×10^5 cells per well), in the same media with Granulin protein, were added to the upper chamber. After 16 hours incubation at 37°C in 5% CO₂ humidified atmosphere, migration cells in the lower chamber were counted. Migrated cells in two separate fields per well from triplicate wells were enumerated on a hemacytometer by means light microscopy.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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