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California Bioscience

Product Datasheet

Product Name	Ras Homolog Enriched in Brain Human Recombinant
Cata No	CB500929
Source	*Escherichia Coli.*
Synonyms	RHEB2, GTP-binding protein Rheb, MGC111559, Ras homolog enriched in brain, RHEB.

Description

RHEB is part of the Ras & GTPase superfamily that was originally identified as an immediate-early gene in brain but is also widely expressed in other tissues. RHEB encodes a lipid-anchored, cell membrane protein with five repeats of the RAS-related GTP-binding region. RHEB is necessary in regulation of growth and cell cycle progression due to its role in the insulin/TOR/S6K signaling pathway. RHEB has GTPase activity and shuttles between a GDP-bound form and a GTP-bound form, and farnesylation of the protein is required for this activity. RHEB induces oncogenic transformation. RHEB overexpression accelerates lymphomagenesis and is associated with prostate cancer. RHEB can cytopathologically distinguish between fibroadenoma from malignant breast carcinomas which is considered as a secondary diagnostic tool. RHEB has a central role in the regulation of the Ras/B-Raf/C-Raf/MEK signaling network.
RHEB Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 197 amino acids (1-181 amino acids) and having a molecular mass of 21.7 kDa.
The RHEB is fused to T7-tag at N-terminus (16 a.a.) and is purified by standard chromatography techniques.

Physical Appearance

Sterile Filtered colorless solution.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Formulation

The RHEB protein solution contains 20mM Tris pH-8, 1mM DTT and 10% glycerol.

Stability

RHEB although stable 4℃ for 4 weeks, should be stored desiccated below -18℃.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

Sequence

MASMTGGQQM GRGSASMPQS KSRKIAILGY RSVGKSSLTI QFVEGQFVDS YDPTIENTFT KLITVNGQEY HLQLVDTAGQ DEYSIFPQTY SIDINGYILV YSVTSIKSFE VIKVIHGKLL DMVGKVQIPI MLVGNKKDLH MERVISYEEG KALAESWNAA FLESSAKENQ TAVDVFRRII LEAEKMDGAA SQGKSSC.

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