abcam

Product datasheet

Recombinant human GTPase HRAS protein ab90766

製品の概要

製品名	Recombinant human GTPase HRAS protein
タンパク質長	Protein fragment

製品の詳細

由来	Recombinant
由来	Escherichia coli
アミノ酸配列	
生物種	Human
領域	1 to 166

特性

Our Abpromise guarantee covers the use of **ab90766** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

生理活性	Activity: GTPgammaS binding: >750 mmol/mol.
アプリケーション	Functional Studies SDS-PAGE
精製度	> 95 % SDS-PAGE. Protein preparation is 100% GDP-loaded, measured by HPLC.
製品の状態	Liquid
備考	ab90766 comprises the first 166 residues of Ras that are sufficient for binding guanine nucleotides and hydrolysis of GTP, but lacks the C-terminal CaaX motif necessary for membrane localization of Ras.

前処理および保存

保存方法および安定性	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. Preservative: None Constituents: 64mM Tris HCl, 5mM DTE (1, 4-Dithioerythritol), 400mM Sodium chloride, 10mM Magnesium chloride, 0.1mM GDP, pH 7.2

This product is an active protein and may elicit a biological response in vivo, handle with caution.

関連情報

機能	Ras proteins bind GDP/GTP and possess intrinsic GTPase activity.
関連疾患	Defects in HRAS are the cause of faciocutaneoskeletal syndrome (FCSS) [MIM:218040]. A rare condition characterized by prenatally increased growth, postnatal growth deficiency, mental retardation, distinctive facial appearance, cardiovascular abnormalities (typically pulmonic stenosis, hypertrophic cardiomyopathy and/or atrial tachycardia), tumor predisposition, skin and musculoskeletal abnormalities. Defects in HRAS are the cause of congenital myopathy with excess of muscle spindles (CMEMS) [MIM:218040]. CMEMS is a variant of Costello syndrome. Defects in HRAS may be a cause of susceptibility to Hurthle cell thyroid carcinoma (HCTC) [MIM:607464]. Hurthle cell thyroid carcinoma accounts for approximately 3% of all thyroid cancers. Although they are classified as variants of follicular neoplasms, they are more often multifocal and somewhat more aggressive and are less likely to take up iodine than are other follicular neoplasms. Note=Mutations which change positions 12, 13 or 61 activate the potential of HRAS to transform cultured cells and are implicated in a variety of human tumors. Defects in HRAS are a cause of susceptibility to bladder cancer (BLC) [MIM:109800]. A malignancy originating in tissues of the urinary bladder. It often presents with multiple tumors appearing at different times and at different sites in the bladder. Most bladder cancers are transitional cell carcinomas. They begin in cells that normally make up the inner lining of the bladder. Other types of bladder cancer include squamous cell carcinoma (cancer that begins in thin, flat cells) and adenocarcinoma (cancer that begins in cells that make and release mucus and other fluids). Bladder cancer is a complex disorder with both genetic and environmental influences. Note=Defects in HRAS are the cause of oral squamous cell carcinoma (OSCC).
配列類似性	Belongs to the small GTPase superfamily. Ras family.
翻訳後修飾	Palmitoylated by the ZDHHC9-GOLGA7 complex. A continuous cycle of de- and re-palmitoylation regulates rapid exchange between plasma membrane and Golgi. S-nitrosylated; critical for redox regulation. Important for stimulating guanine nucleotide exchange. No structural perturbation on nitrosylation.
細胞内局在	Cell membrane. Golgi apparatus membrane. The active GTP-bound form is localized most strongly to membranes than the inactive GDP-bound form (By similarity). Shuttles between the plasma membrane and the Golgi apparatus.

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