Active Recombinant Human HRAS Protein, His-tagged

Cat. No. HRAS-85H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HRAS Protein is produced by bacterial expression system. This protein is fused with a His tag at the amino-terminus. The protein is supplied as a lyophilized powder. When it is reconstituted in distilled water to 1 mg/ml, the protein is in the following buffer: 2 mM Tris pH 7.6, 0.5 mM MgCl2, 0.5% sucrose, 0.1% dextran.
Species	Human
Source	Bacteria
Form	2 mM Tris pH 7.6, 0.5 mM MgCl2, 0.5% sucrose, 0.1% dextran.
Bio-activity	The biological activity of His-Ras can be determined from its ability to catalyze the exchange of GDP for GTP. EDTA is used to create a conformational change in the His-Ras protein that mimics GEF (Guanine nucleotide Exchange Factor) activity.
Molecular Mass	28 kDa
Purity	>80% pure
Applications	Study of Ras exchange activity with different GEFs; Identification of Ras exchange factors (GEFs); Positive control for GEF studies; Biochemical characterization of Ras protein interactions; Western blot standard.

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Stability	The protein is stable for six months if stored at -70 centigrade. The protein must not be exposed to repeated freeze-thaw cycles. The lyophilized protein is stable at 4 centigrade desiccated (<10% humidity) for one year.
Storage	Upon arrival store at 4 centigrade (desiccated).
Reconstitution	Before reconstitution, briefly centrifuge to collect the product at the bottom of the tube. The protein should be reconstituted to 5 mg/ml with the addition of 20 µof Milli-Q water. When reconstituted, the protein will be in the following buffer: 2 mM Tris pH 7.6, 0.5 mM MgCl2, 0.5% (w/v) sucrose and 0.1% (w/v) dextran. In order to maintain high biological activity of the protein it is strongly recommended that the protein solution be supplemented with DTT to 1 mM final concentration, aliquoted into "experiment sized" amounts, snap frozen in liquid nitrogen and stored a -70 centigrade.

GENE INFORMATION

Gene Name	HRAS v-Ha-ras Harvey rat sarcoma viral oncogene homolog [Homo sapiens]
Official Symbol	HRAS
Synonyms	HRAS; HRAS1; GTPase HRas; p21ras; H-Ras-1; CTLO; HAMSV; K-RAS; N-RAS; RASH1; C-H-RAS; H-RASIDX; C-BAS/HAS; C-HA-RAS1;
Gene ID	3265
mRNA Refseq	NM_001130442
Protein Refseq	NP_001123914
MIM	190020

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UniProt ID	P01112
	His-H-Ras protein purity determination. A 10 μg sample of RS01 (His-H-Ras molecular weight approx. 28 kDa) was separated by electrophoresis in a 12% SDS-PAGE system. The protein was stained with Coomassie Blue.
	His-Ras exchange assay using BK100. His-H-Ras protein (1 μM) was mixed with exchange buffer and aliquoted to four wells of a 96-well half area plate. After 5 cycles of reading in a fluorimeter, EDTA was added to 40 mM in the test samples and Milli-Q water to the control samples. Reactions were monitored for 30 min.

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