# Human Raf-1 / RAF1 Protein (His & GST Tag)

**Catalog Number:** **10657-H20B**

## General Information

**Gene Name Synonym:**

c-Raf; CMD1NN; CRAF; NS5; Raf-1

**Protein Construction:**

A DNA sequence encoding the human RAF1 ( NP_002871.1) (Ser306-Phe648) was expressed with a C-terminal polyhistidine-tagged GST tag at the N-terminus (his-GST).

**Source:** Human

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

**Purity:** > 70 % as determined by SDS-PAGE.

**Endotoxin:**

< 1.0 EU per μg protein as determined by the LAL method.

**Stability:**

Samples are stable for up to twelve months from date of receipt at -70 ℃

**Predicted N terminal:** Met

**Molecular Mass:**

The recombinant human RAF1 consists of 580 amino acids and predicts a molecular mass of 66.9 kDa.

**Formulation:**

Lyophilized from sterile 20 mM Tris, 500 mM Nacl, pH 8.0, 10 % glycerol, 0.5 mM TCEP, 2 mM GSH.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

**Storage:**

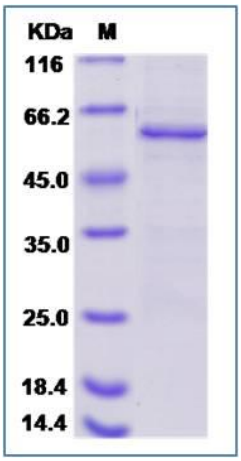
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

**Reconstitution:**

Detailed reconstitution instructions are sent along with the products.

**SDS-PAGE:**




## Protein Description

RAF1 gene is the cellular homolog of viral raf gene (v-raf). The encoded protein is a MAP kinase kinase kinase (MAP3K), which functions downstream of the Ras family of membrane associated GTPases to which it binds directly. Once activated, the cellular RAF1 protein can phosphorylate to activate the dual specificity protein kinases MEK1 and MEK2, which in turn phosphorylate to activate the serine/threonine specific protein kinases, ERK1 and ERK2. Activated ERKs are pleiotropic effectors of cell physiology and play an important role in the control of gene expression involved in the cell division cycle, apoptosis, cell differentiation and cell migration. Mutations in this gene are associated with Noonan syndrome 5 and LEOPARD syndrome 2.

**References**

3.Zhang K, Chen H, Zhang B, *et al.* Overexpression of Raf-1 and ERK1/2 in sacral chordoma and association with tumor recurrence. International Journal of Clinical and Experimental Pathology. 2015;8(1):608-614.