

## Recombinant Human K-Ras

**CATALOG NUMBER:** STA-748      **STORAGE:** -80°C; avoid freeze/thaw cycles

**QUANTITY:** 25 µg/vial in Tris Buffer, pH 8.0 with 0.1 M NaCl, 1 mM DTT and 10% glycerol

**SHELF LIFE:** 1 year from date of receipt under proper storage conditions; for longer term storage add 0.1% BSA

### **Background**

Small GTP-binding proteins (or GTPases) are a family of proteins that serve as molecular regulators in signaling transduction pathways. Ras, a 21 kDa protein, regulates a variety of biological response pathways that include cell growth, cell transformation and tumor invasion. Like other small GTPases, Ras regulates molecular events by cycling between an inactive GDP-bound form and an active GTP-bound form. In its active (GTP-bound) state, Ras binds specifically to the Ras-binding domain (RBD) of Raf1 to control downstream signaling cascades. The most notable members of the Ras subfamily are H-Ras, N-Ras and K-Ras, mainly for being implicated in many types of cancer.

### **Purity and Activity**

Cell Biolabs' rK-Ras is expressed and purified from *E. coli* as a recombinant protein with purity >90% by SDS-PAGE. It has an approximate MW of 23.2 kDa including a His-tag at the N-terminus.

### **Sequence**

MGSSHHHHHSSGLVPRGSHMTEYKLVVVGAGGVGKSALTIQLIQNHFVDEYDPTIEDSYRKQV  
VIDGETCLLDILTAGHEEYSAMRDQYMRTGEGFLCVFAINNTKSFEDIHHYREQIKRVKDSADV  
PMVLVGNKCDLPSRTVDTKQAQDLARSYGIPFIETSAKTRQGVDDAFYTLVREIRKHKEKMSKD  
GKKKKKSKTKC

### **References**

1. Bar-Sagi D., and Hall A. (2000) *Cell* **103**: 227-38.
2. de Rooij J., and Bos J. L. (1997) *Oncogene* **14**: 623-5.

### **Recent Product Citation**

Feng, H. et al. (2019). K-RasG12D has a potential allosteric small molecule binding site. *Biochemistry*. doi: 10.1021/acs.biochem.8b01300.

### **Warranty**

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*This product is for RESEARCH USE ONLY; not for use in diagnostic procedures.*

**Contact Information**

Cell Biolabs, Inc.  
7758 Arjons Drive  
San Diego, CA 92126  
Worldwide: +1 858-271-6500  
USA Toll-Free: 1-888-CBL-0505  
E-mail: [tech@cellbiolabs.com](mailto:tech@cellbiolabs.com)  
[www.cellbiolabs.com](http://www.cellbiolabs.com)

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