

## Recombinant Human Ral A

- CATALOG NUMBER:** STA-732                      **STORAGE:** -80°C; avoid freeze/thaw cycles
- QUANTITY:** 25 µg/vial in Tris-HCl, pH 8.0 with 0.1 M NaCl, 2 mM DTT, 0.1 mM PMSF 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. Ral, a 24 kDa protein of the Ras superfamily, regulates a variety of biological response pathways that include vesicle trafficking, cytoskeletal rearrangement, and migration. The Ras-like proteins RalA and RalB share 85% identity. Like other small GTPases, Ral A regulates molecular events by cycling between an inactive GDP-bound form and an active GTP-bound form. In its active (GTP-bound) state, Ral A binds specifically to the protein-binding domain (PBD) of RalBP1 to control downstream signaling cascades.

### Purity and Activity

Cell Biolabs' rRal A is expressed and purified from *E. coli* as a recombinant protein with purity >90% by SDS-PAGE. It has an approximate MW of 25.8 kDa including a His-tag at the N-terminus.

### Sequence

MGSSHHHHHSSGLVPRGSHMGSHMAANKPKGQNSLALHKVIMVSGGGVGSALTLQFMYDE  
FVEDYEPTKADSYRKKVVLGDGEEVQIDILDTAGQEDYAAIRDNYFRSGEGFLCVFSITEMESFAAT  
ADFREQILRVKEDENVPFLVGNKSDLEDKRQVSVEEAKNRAEQWNVNYVETSAKTRANVVKV  
FFDLMREIRARKMEDSKEKNGKKRKS LAKRIRERC

### References

1. Wolthuis RM, Franke B, van Triest M, et al. (1998) *Mol Cell Biol* **18**:2486–2491.
2. Herrmann C, Horn G, Spaargaren M, Wittinghofer A (1996) *J Biol Chem* **271**:6794–6800.
3. Ward Y, Wang W, Woodhouse E, et al. (2001) *Mol Cell Biol* **21**:5958–5969.
4. Oxford G, Owens CR, Titus BJ, et al. (2005) *Cancer Res* **65**:7111–7120.

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