

# PRODUCT DATA SHEET



RAP/LRPAP1 (human, recombinant)

**CATALOG NO.:** SE-552

**LOT NO.:** Temp

**DESCRIPTION:** MW~39 kDa on SDS-PAGE. Recombinant human RAP (LDL Receptor Associated Protein; LDL Receptor-related Protein-Associated Protein 1, LRPAP1; Alpha-2-Macroglobulin Receptor-Associated Protein-1, A2MRAP) expressed in *E. coli*<sup>1</sup> with a GST tag, which is cleaved off following purification. RAP functions in ER maturation of lipoprotein receptor family members by acting as an antagonist<sup>2</sup>. It blocks binding of PCSK9 to lipoprotein receptors<sup>3</sup> and of all known ligands (including MMP-9 and apoE) to lipoprotein receptor-related protein 1 (LRP-1)<sup>4-6</sup>. Modulates amyloid deposition in mouse models of Alzheimer's disease<sup>7</sup>. Reduces endocytosis of prion protein (PrP<sup>C</sup>) by neuronal cells<sup>8</sup>.

**PURITY:** >90% by SDS-PAGE. Endotoxin 22 EU/mg.

**USAGE:** Binding studies<sup>3-6</sup>, and testing *in vivo*<sup>7</sup> and in cell culture<sup>8</sup>.

**SUPPLIED AS:** 100ug RAP at 1.89 mg/ml in 20 mM NaOAc, pH 5.0, 500 mM NaCl.

**STORAGE:** -80°C for at least 1 year. After initial defrost, aliquot product into individual tubes and refreeze at -80°C. Avoid repeated freeze/defrost cycles.

NOTE: When stored under the above conditions, this protein is stable at the concentration supplied, in its current storage buffer. Procedures such as dilution followed by refreezing could lead to loss of activity.

## REFERENCES:

1. J. Herz *et al.* *J. Biol. Chem.* 1991 **266** 21232
2. K. Estrada *et al.* *Biochemistry* 2008 **47** 1532
3. L. Shan *et al.* *Biochem. Biophys. Res. Commun.* 2008 **375** 69
4. E. Mantuano *et al.* *J. Neurosci.* 2008 **28** 11571
5. Z. Sheng *et al.* *Neuropharmacology* 2008 **55** 204
6. M.S. Nielsen *et al.* *J. Biol. Chem.* 1995 **270** 23713
7. G. Xu *et al.* *PLoS One* 2008 **3** e3159
8. D.R. Taylor and N.M. Hooper *Biochem. J.* 2007 **402** 17

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