

MATERIAL DATA SHEET**His₆-GATE-16/Apg8p2, human recombinant**
Cat. # UL-420

There are at least three groups of mammalian Apg8 proteins which are homologs of the yeast Atg8 protein, GATE-16 (Golgi-associated ATPase Enhancer of 16 kDa). The mammalian Apg8 proteins are ubiquitin-like modifiers that have divergent functions in humans, and are essential in autophagic conjugation systems. This modifier protein has a conserved C-terminal glycine residue that becomes covalently attached to phosphatidylethanolamine (PE) after it is activated by the Apg7p (E1) and Apg3p (E2) enzymes. GATE-16 is highly conserved from yeast to mammals, is constitutively expressed in secretory organs and localizes to the Golgi apparatus. The protein participates in membrane-trafficking events, and it has been proposed that GATE-16 modulates intra-Golgi transport by acting as an adaptor protein that couples NSF activity and SNARE activation. Accession # NP_009216.

Product Information

Quantity:	500 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 100 mM NaCl, 10% glycerol, 1 mM DTT. Concentration varies with lot number.
MW:	15.7 kDa
Purity:	> 95% by SDS-PAGE

Use & Storage

Use:	Typical concentration to support conjugation <i>in vitro</i> is 10-50 µM depending on conditions.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Becher P., <i>et al.</i> (2002) <i>J. Virol.</i> 76 : 13069-13076 Elazar Z., <i>et al.</i> (2001) <i>Genomics</i> 74 : 408-413 Paz Y., <i>et al.</i> (2000) <i>J. Biol. Chem.</i> 275 : 25445-2545- Sagiv Y., <i>et al.</i> (2000) <i>EMBO J.</i> 19 : 1494-1504 Scherz-Shouval R., <i>et al.</i> (2003) <i>J. Biol. Chem.</i> 278 : 14053-14058 Tanida I., <i>et al.</i> (2002) <i>J. Biol. Chem.</i> 277 : 13739-13744 Xin Y., <i>et al.</i> (2001) <i>Genomics</i> 74 : 408-413
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