



# Recombinant Rat Unconventional myosin-Ia (Myo1a), partial

<b>Product Code</b>	CSB-EP730807RA-B
<b>Abbreviation</b>	Myo1a
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	Q62774
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Rattus norvegicus (Rat)
<b>Purity</b>	≥85% (SDS-PAGE)
<b>Source</b>	E.coli
<b>Target Names</b>	Myo1a
<b>Protein Names</b>	Recommended name: Unconventional myosin-Ia Alternative name(s): Brush border myosin I Short name= BBM-I Short name= BBMI Myosin I heavy chain Short name= MIHC
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Partial
<b>Target Details</b>	This protein belongs to the myosin superfamily. Myosins are molecular motors that, upon interaction with actin filaments, utilize energy from ATP hydrolysis to generate mechanical force. Each myosin has a conserved N-terminal motor domain that contains both ATP-binding and actin-binding sequences. Following the motor domain is a light-chain-binding neck region containing 1-6 copies of a repeat element, the IQ motif, that serves as a binding site for calmodulin or other members of the EF-hand superfamily of calcium-binding proteins. At the C-terminus, each myosin class has a distinct tail domain that serves in dimerization, membrane binding, protein binding, and/or enzymatic activities and targets each myosin to its particular subcellular location. The kidney epithelial cell line, LLC-PK1-CL4 (CL4), forms a well ordered brush border (BB) on its apical surface. Experiments indicate that the brush border population of the encoded protein turns over rapidly, while its head and tail domains interact transiently with the core actin and plasma membrane, respectively. A rapidly exchanging pool of This protein envelops an actin core bundle that, by comparison, is static in structure.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final



concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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