



# Recombinant Protein Technical Manual

## Recombinant Human $\beta$ -Actin/Beta Actin Protein (His Tag)

RPE3424

### Product Data:

**Product SKU:** RPE3424

**Size:** 10 $\mu$ g

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P60709

### Protein Information:

**Molecular Mass:** 42.8 kDa

**AP Molecular Mass:** 3000 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 85 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per  $\mu$ g as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2  $\mu$ m filtered solution of 10mM TrisHCl, 0.1% TritonX00, 2mM DTT, pH 8.0.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Actin Cytoplasmic 1; Beta-Actin; ACTB

## Immunogen Information:

**Sequence:** Asp2-Phe375

## Background:

Actins are ubiquitous globular and highly conserved proteins that are involved in various types of cell motility, structure, and integrity. Three main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins co-exist in most cell types as components of the cytoskeleton, and as mediators of internal cell motility. ACTB is a major constituent of the contractile apparatus and one of the two nonmuscle cytoskeletal actins. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to 4 others.