Certificate of Analysis

Actin, beta Human

Purified

Catalog No	CAS No	Molecular Formula	Molecular Weight	Storage
MBS635217			43kD	-20°C

Lot No	Control No	Revision No	Revised By	Approved By
L19092605	C21120224	050714		

Actin and myosin are the two major cytoskeleton proteins implicated in cellular movement, secretion, phagocytosis, and kinesis. Actin is one of the most conserved cellular protein. At least 6 actin isoforms have been identified by protein sequence analyses. Four actin isoforms represent the differentiation markers of muscle tissues. There are three a-actins: a-skeletal, a-cardiac, and a-smooth muscle), one b-actin (b-non-muscle), and two g-actins (gsmooth muscle and g-non-muscle). Actin isoform are >90% conserved, except in the N-terminal 18-aa (50-60% homology). Beta-actin protein and mRNA levels are often used as a reference for comparing changes in cellular protein/mRNA levels by Western Blots.

Source: Purified beta-Actin from human platelets cells.

Purity: >99%. May contain traces of gamma-actin.

Form: Supplied as a liquid in 5mM Tris. pH 8, 0.2mM calcium chloride, 0.2mM ATP, 5% sucrose, 1% dextran.

Concentration: 1mg/ml

Biological Activity: Not tested. If the protein is stored and used properly can be used for biological assays.

Applications: Suitable for use in ELISA and Western Blot. Other applications not tested.

Recommended Dilutions: *ELISA*: 1ug/ml used to coat plates
Western Blot: 100-500ng/lane in SDS-PAGE sample buffer (reduced) and load as needed.
Optimal dilutions to be determined by the researcher.

Storage and Stability: May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months after receipt. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

1. Ohmuri H (1995) Gene Accession # S38782 2. Vandekerchove, J et al (1978) Eur. J. Biochem. **90**:451. 3. Lessard J et al (1988) Cell. Motil Cytoskel. **10**:349. 4. North JA et al (1994) J. Cell Sci. **107**:437.