# **Elabscience**®

# Recombinant Human ACTA2 protein (His Tag)

## Catalog Number: PDEH100905

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	E.coli-derived Human ACTA2 protein Cys2-Phe377, with an N-terminal His
Calculated MW	41.3 kDa
Observed MW	42 kDa
Accession	P62736
Bio-activity	Not validated for activity
Properties	
Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at $< -20$ °C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with 5% Trehalose and 5%
	Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of
	0.5 mg/mL Concentration is measured by UV-Vis.

#### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Actin proteins are major components of the eukaryotic cytoskeleton. At least six vertebrate actin isoforms have been identified. The cytoplasmic  $\beta$ -and  $\gamma$ -actin proteins are referred to as "non-muscle" actin proteins as they are predominantly expressed in non-muscle cells where they control cell structure and motility. The  $\alpha$ -cardiac and  $\alpha$ -skeletal actin proteins are expressed in striated cardiac and skeletal muscles, respectively. The smooth muscle  $\alpha$ -actin and  $\gamma$ -actin proteins are found primarily in vascular smooth muscle and enteric smooth muscle, respectively. The  $\alpha$ -smooth muscle actin (ACTA2) is also known as aortic smooth muscle actin. These actin isoforms regulate the contractile potential of muscle cells.