

**AR50543PU-N****Human ACTA2 / aortic smooth muscle Actin (3-377, His-tag) - Purified**

<b>Alternate names:</b>	ACTSA, ACTVS, Alpha-actin-2, Cell growth-inhibiting gene 46 protein
<b>Quantity:</b>	0.25 mg
<b>Concentration:</b>	1 mg/ml (determined by Bradford assay)
<b>Background:</b>	ACTA2 belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Defects in this gene cause aortic aneurysm familial thoracic type 6. Multiple alternatively spliced variants, encoding the same protein, have been identified.
<b>Uniprot ID:</b>	<a href="#">P62736</a>
<b>NCBI:</b>	<a href="#">NP_001604.1</a>
<b>GeneID:</b>	<a href="#">59</a>
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Format:</b>	<b>State:</b> Liquid purified protein <b>Purity:</b> >85% by SDS - PAGE <b>Buffer System:</b> 20 mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol
<b>Description:</b>	Recombinant Human ACTA2 protein, fused to His-tag at N-terminus, was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques. <b>AA Sequence:</b> <u>MGSSHHHHHH</u> <u>SSGLVPRGSH</u> <u>MGSHMEEDS</u> TALVCDNGSG LCKAGFAGDD APRAVFPSIV GRPRHQGVMV GMGQKDSYVG DEAQSKRGIL TLKYPPIEHGI ITNWDDMEKI WHHSFYNELR VAPEEHPTLL TEAPLNPKAN REKMTQIMFE TFNVPAMYVA IQAVLSLYAS GRRTGIVLDS GDGVTHNVPI YEGYALPHAI MRLDLAGRDL TDYLMKILTE RGYSFVTTAE REIVRDIKEK LCYVALDFEN EMATAASSSS LEKSYELPDG QVITIGNERF RCPETLFQPS FIGMESAGIH ETTYNSIMKC DIDIRKDLA NNVLSGGTTM YPGIADRMQK EITALAPSTM KIKI IAPPER KYSVWIGGSI LASLSTFQQM WISKQEYDEA GPSIVHRKCF <b>Molecular weight:</b> 44.4 kDa (400aa), confirmed by MALDI-TOF
<b>Storage:</b>	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
<b>General Readings:</b>	1. Sakai H, Suzuki S, Mizuguchi T, Imoto K, Yamashita Y, Doi H, et al. Rapid detection of gene mutations responsible for non-syndromic aortic aneurysm and dissection using two different methods: resequencing microarray technology and next-generation sequencing. <i>Hum Genet.</i> 2012 Apr;131(4):591-9. doi: 10.1007/s00439-011-1105-7. Epub 2011 Oct 15. PubMed PMID: 22001912. 2. Regalado, E., et al. (2011) <i>Am. J. Med. Genet. A</i> 155A (9), 2125-2130.

Pictures:

