

---

## Product Data Sheet

---

Product Name: ACTN1 Human  
 Cat. No.: GP22704  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	ACTN1; Actinin; Alpha 1; Alpha-Actinin Cytoskeletal Isoform; F-Actin Cross-Linking Protein; Non-Muscle Alpha-Actinin-1; BDPLT15; Actinin 1 Smooth Muscle; Alpha-Actinin-1.		
Amino Acid Sequence	MGSSHHHHHSSGLVPRGSH MGSEFMDHYD SQQTNDYMQP EEDWDRDLLL DPAWEKQQRKTFTAWCNSHL RKAGTQIENI EEDFRDGLKL MLLLEVISGE RLAKPERGKM RVHKISNVNK ALDFIASKGVKLVSIGAEI VDGNVKMTLG MIWTIILRFA IQDISVEETS AKEGLLLWCQ RKTAPYKNVN IQNFHISWKDGLGFCALIHR HRPELIDYGK LRKDDPLTNL NTAFDVAEKY LDIPKMLDAE DIVGTARPDE KAIMTYVSSF YHAF.		
Formulation	ACTN1 protein solution (1mg/ml) containing Phosphate Buffered Saline (pH7.4) and 10% glycerol.		

### Introduction

ACTN1 encodes a nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

ACTN1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 274 amino acids (1-249 a.a) and having a molecular mass of 31.4kDa. ACTN1 is fused to a 25 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

**Caution: Product has not been fully validated for medical applications. For research use only.**

**Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com**

**Address: 10292 Central Ave. #205, Montclair, CA, USA**