

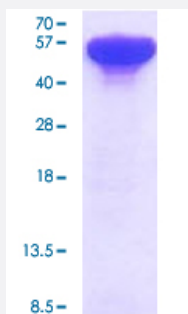
Full-Length

HSPA1A (Human) Recombinant Protein

Catalog # P3391

Size 100 ug

Applications



Specification

Product Description

Human HSPA1A (NP_005336, 1 a.a. - 641 a.a.) full-length recombinant protein with His tag at N-terminal expressed in *Escherichia coli*.

Sequence

MGSSHHHHHSSGLVPRGSHMAKAAAIGIDLGTTYSCVGVFQHGKVEIIANDQGNRTTPSYVAFTD
TERLIGDAAKNQVALNPQNTVFDKRLIGRKFGDPVVQSDMKHWPQVINDGDKPKVQVSYKGD
TKAFYPEEISSMVLTKMKEIAEAYLGYPTNAVITVPAYFNDSQRQATKDAGVIAGLNVLRINEPTAA
AAYGLDRTGKGERNVLIFFDLGGGTFDVSILTIDGIFEVKATAGDTHLGGEDFDNRLVNHFVEEFK
RKHKKDISQNKRAVRRLRTACERAKRTLSSSTQASLEIDSLFEGIDFYTSITRARFEELCSDLFRST
LEPVEKALRDAKLDKAIHDLVLVGGSTRIPKVQKLLQDFFNGRDLNKSINPDEAVAYGAAVQAAI
LMGDKSENVQDLLLLDVAPLSLGLETAGGVMTALIKRNSTIPTKQTQIFTTYSNQPGVLIQVYEGE
RAMTKDNNLLGRFELSGIPPAPRGVPQIEVTFDIDANGILNVTATDKSTGKANKITITNDKGRLSKEEI
ERMVQEAKEYKAEDDEVQRERVSAKNALESYAFNMKSAVEDEGLKGKISEADKKKVLDKCQEVIS
WLDANTLAEKDEFEHKRKELEQVCNPIISGLYQGAGGPGPGGFGAQQPKGGSGSGPTIEVD

Host

Escherichia coli

Theoretical MW (kDa)

72.2

Form

Liquid

Preparation Method

Escherichia coli expression system

Purification

Conventional Chromatography

Concentration	1 mg/mL
Purity	> 95% by SDS-PAGE
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method).
Quality Control Testing	3 ug by 15% SDS-PAGE under reducing condition and visualized by Coomassie blue stain.
Storage Buffer	In 20 mM Tris-HCl buffer, pH 7.5, (2 mM DTT).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Applications

- SDS-PAGE

Gene Info — HSPA1A

Entrez GeneID	3303
Protein Accession#	NP_005336
Gene Name	HSPA1A
Gene Alias	FLJ54303, FLJ54370, FLJ54392, FLJ54408, FLJ75127, HSP70-1, HSP70-1A, HSP70I, HSP72, HSPA1, HSPA1B
Gene Description	heat shock 70kDa protein 1A
Omim ID	140550
Gene Ontology	Hyperlink
Gene Summary	This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. In conjunction with other heat shock proteins, this protein stabilizes existing proteins against aggregation and mediates the folding of newly translated proteins in the cytosol and in organelles. It is also involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1. The gene is located in the major histocompatibility complex class III region, in a cluster with two closely related genes which encode similar proteins. [provided by RefSeq]
Other Designations	OTTHUMP00000029287 dnaK-type molecular chaperone HSP70-1 heat shock 70kD protein 1A heat shock 70kDa protein 1B heat shock-induced protein

Publication Reference

- [Extracellular HSP72 induces proinflammatory cytokines in human periodontal ligament fibroblast cells through the TLR4/NFκB pathway in vitro.](#)

Arai C, Nomura Y, Matsuzawa M, Hanada N, Nakamura Y.

Archives of Oral Biology 2017 Nov; 83:181.

Application: Func, Human, Human periodontal ligament fibroblast cells

Pathway

- [Antigen processing and presentation](#)
- [Endocytosis](#)
- [MAPK signaling pathway](#)
- [Prion diseases](#)

Disease

- [Abortion](#)
- [Altitude Sickness](#)
- [Alzheimer disease](#)
- [Brain Ischemia](#)
- [Cardiovascular Diseases](#)
- [Cerebrovascular Accident](#)
- [Cognition](#)
- [Connective Tissue Diseases](#)
- [Constriction](#)
- [Coronary Disease](#)
- [Dementia](#)

- [Depressive Disorder](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Disease Progression](#)
- [Drug Hypersensitivity](#)
- [Duodenal Ulcer](#)
- [Edema](#)
- [Epidermal Necrolysis](#)
- [Exanthema](#)
- [Fetal Diseases](#)
- [Genetic Predisposition to Disease](#)
- [Glaucoma](#)
- [Hearing](#)
- [Hearing Loss](#)
- [Helicobacter Infections](#)
- [Hypertension](#)
- [Infection](#)
- [Inflammation](#)
- [Kidney Failure](#)
- [Leprosy](#)
- [Lupus Erythematosus](#)
- [Meniere Disease](#)
- [Metabolic Syndrome X](#)
- [Multiple Sclerosis](#)

- [Musculoskeletal Diseases](#)
- [Neoplasms](#)
- [Obesity](#)
- [Optic Nerve Diseases](#)
- [Osteoporosis](#)
- [Parkinson disease](#)
- [Precancerous Conditions](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Psychiatric Status Rating Scales](#)
- [Psychometrics](#)
- [Pulmonary Disease](#)
- [Pulmonary Edema](#)
- [Recurrence](#)
- [Sarcoidosis](#)
- [Schizophrenia](#)
- [Shock](#)
- [Skin Diseases](#)
- [Spondylarthropathies](#)
- [Spondylitis](#)
- [Stevens-Johnson Syndrome](#)
- [Stomach Neoplasms](#)
- [Stress](#)
- [Stroke](#)
- [Tuberculosis](#)

- [Uveitis](#)