

## SERPINH1 Human

**Description:** Recombinant Human HSP47 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 422 amino acids (18-418 a.a) and having a molecular mass of 46.8kDa. HSP47 human recombinant is fused to a 20 amino acid His Tag at N-terminus and purified by conventional chromatography techniques.

Catalog #: HYP5-054

For research use only.

**Synonyms:** HSP47, HSP-47, Colligin-1, CBP1, Collagen Binding Protein-1, Serpin Peptidase Inhibitor Clade-H memeb1, Serpin H1, Collagen-binding protein, Colligin, 47 kDa heat shock protein, Rheumatoid arthritis-related antigen RA-A47, Arsenic-transactivated protein

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile filtered colorless solution.

**Amino Acid Sequence:** MGSSHHHHHH SSGLVPRGSH MAAEVKKPAA AAAPGTAEKL  
SPKAATLAER SAGLAFSLYQ AMAKDQAVEN ILVSPVVVAS SLGLVSLGSK ATTASQAKAV  
LSAEQLRDEE VHAGLGELLR SLSNSTARNV TWKLGSRLYG PSSVSFADDF VRSSKQHYNC  
EHSKINFRDK RSALQSINEW AAQTTDGKLP EVTKDVERTD GALLVNAMFF KPHWDEKFFH  
KMVDNRGFMV TR

**Purity:** Greater than 90.0% as determined by SDS-PAGE.

### Formulation:

The SERPINH1 protein solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0) and 10% glycerol.

### Stability:

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

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### Introduction:

SERPINH1 is part of the serpin superfamily of serine proteinase inhibitors. SERPINH1 expression is induced by heat shock. HSP47 localizes to the endoplasmic reticulum lumen and binds collagen therefore it is a molecular chaperone which takes part in the maturation of collagen molecules, facilitating the folding and assembly of procollagen molecules, retaining unfolded molecules within the ER, and assisting the transport of correctly folded-molecules from the ER to Golgi apparatus. Autoantibodies to HSP47 protein have been found in rheumatoid arthritis. SERPINH1 binds specifically to collagen and acts as a chaperone in the biosynthetic pathway of collagen.

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