

## Serpin B4, Protein, Human, Recombinant (His)

### General Information

|                       |  |
|-----------------------|--|
| Synonyms:             | SCCA-2;LEUPIN;SCCA1;serpin peptidase inhibitor, clade B (ovalbumin), member 4;Serpin B4;SCCA2;PI11   |
| Protein Construction: | A DNA sequence encoding the human SERPINB4 (P48594) (Met 1-Pro 390) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: Met |
| Species:              | Human  |
| Expression Host:      | Baculovirus Insect Cells   |
| Accession:            | P48594   |
| Molecular Weight:     | 47.1 kDa (predicted); 45 kDa (reducing conditions)   |

### QC Testing

|                      |   |
|----------------------|---|
| Biological Activity: | Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.  |
| Purity:              | > 88 % as determined by SDS-PAGE  |
| Endotoxin:           | < 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.   |
| Formulation:         | Lyophilized from a solution filtered through a 0.22 $\mu$ m filter, containing 20 mM Tris, 500 mM NaCl, pH 7.4, 20% gly, 1 mM EDTA, 1 mM DTT. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

#### Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Overexpression of SERPINB4 in tumor cells inhibited recombinant GrM-induced as well as NK cell-mediated cell death and this inhibition depended on the reactive center loop of the serpin.

### Reference

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- Shiiba M, et al. (2010) Down-regulated expression of SERPIN genes located on chromosome 18q21 in oral squamous cell carcinomas. Oncol Rep. 24(1): 241-9. en, Der p J Biol Chem. 279(7): 5081-7.
- Murakami A, et al. (2008) Relationship between decreased expression of squamous cell carcinoma antigen 2 and E-cadherin in primary cervical cancer lesions and lymph node metastasis. Oncol Rep. 19(1): 99-104.
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