

## MATERIAL DATA SHEET

### Recombinant Human His6 S5a/Angiocrinin

#### Cat. # SP-400

S5a/Angiocrinin, also known as Anti-secretory Factor (ASF), is classified under the gene PSMD4, but is often referred to by a different name depending on the context in which it is described. S5a and ASF have identical 377 amino acid (aa) sequences, while Angiocrinin is described as having an additional Gly255Glu256Arg257 sequence in its C-Terminus (1-3). The human protein shares 96% and 99% aa sequence identity with its mouse and rat orthologs, respectively. Structurally, it contains an N-terminal von Willebrand Factor type A domain and two C-terminal Ubiquitin-interacting motifs (UIM). It acts as a Ubiquitin-binding protein where it is most commonly referred to as S5a or in yeast as Rpn10. It is part of the 19S regulatory subunit of the 26S Proteasome where its UIM recognizes poly-ubiquitinated proteins destined for degradation (4). As a part of the proteasome complex, it may also recognize the Ubiquitin-like modifier FAT10 (5). Free cytoplasmic forms also exist where its ubiquitination is catalyzed by a range of Ubiquitin E3 ligases from different classes. Therefore, experimentally S5a/Angiocrinin may act as a useful substrate to monitor the activity of (E3) ligases, independent of their specific mechanisms of action (6). In cancer biology, where it is often referred to as Angiocrinin, it is shown to slow tumor progression. It is found in the extracellular matrix of certain tumor subtypes, and it may act by suppressing angiogenesis or by directly inhibiting tumor cell growth (7,8). It also is found in several biological fluids where it is known primarily as ASF. It suppresses fluid secretion in response to enterotoxin and may act as an anti-inflammatory factor (9-11).

#### Product Information

<b>Quantity:</b>	100 µg
<b>MW:</b>	42 kDa
<b>Source:</b>	<i>E. coli</i> -derived human S5a/Angiocrinin protein Contains a 6-His tag Accession # P55036
<b>Stock:</b>	Supplied as a solution in HEPES, NaCl, DTT and Glycerol.
<b>Purity:</b>	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

## Use & Storage

**Use:** Recombinant Human His6-S5a/Angiocidin is ideal for use as a control substrate for *in vitro* Ubiquitin conjugation. Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human His6-S5a/Angiocidin concentration of 1-5 µM.

**Storage:** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -70 °C as supplied.
- 3 months, -70 °C under sterile conditions after opening.

## Literature

### References:

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