

**DESCRIPTION**

<b>Source</b>	<i>E. coli</i> -derived Ser2-Gln101 with an N-terminal Met Accession # AAH34687
<b>N-terminal Sequence Analysis</b>	Ser2 (Major) & Met1 (Minor)
<b>Structure / Form</b>	Noncovalently-linked homodimer
<b>Predicted Molecular Mass</b>	11 kDa

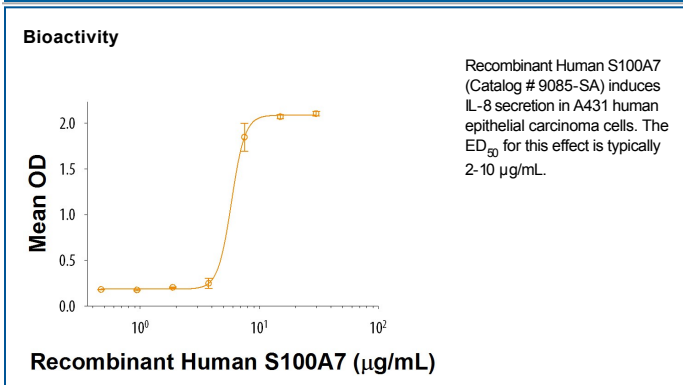
**SPECIFICATIONS**

<b>SDS-PAGE</b>	11 kDa, reducing conditions
<b>Activity</b>	Measured by its ability to induce IL-8 secretion in A431 human epithelial carcinoma cells. The ED <sub>50</sub> for this effect is typically 2-10 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 500 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**BACKGROUND**

S100A7, also known as Psoriasin, is a 11-12 kDa member of the S100 family of EF hand calcium binding proteins (1). Human S100A7 shares 32% amino acid sequence identity with mouse S100A7A, the closest related protein in mouse (2). It is acetylated at the N-terminus and binds both calcium and zinc ions (3, 4). S100A7 is up-regulated in keratinocytes of psoriasis and atopic dermatitis lesions (5-9), as well as in epithelial cells of the tongue, eye, and female genital tract (10-12). Its up-regulation can be induced by bacterial exposure, inflammatory cytokines, or epidermal barrier disruption (3, 9, 11, 12). S100A7 supports epithelial integrity through killing *E. coli* by sequestration of zinc (3, 5) and through inducing the up-regulation of tight junction proteins (13). The interaction of S100A7 with RAGE promotes the migration of immune cells and the infiltration of macrophages into tumor sites (7, 14).

**References:**

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