

## Recombinant *S. pyogenes* Cas9 Protein, His-tagged

Cat. No. Cas9-03S Lot. No. (See product label)

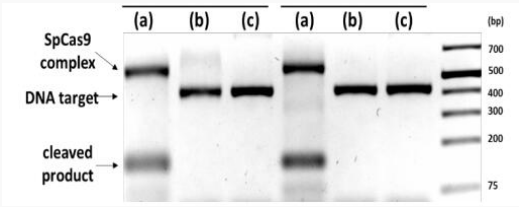
### SPECIFICATION

<b>Product Overview</b>	Recombinant full-length <i>S. pyogenes</i> Cas9 was expressed in <i>E. coli</i> with a C-terminal His tag.
<b>Species</b>	<i>S.pyogenes</i>
<b>Source</b>	<i>E.coli</i>
<b>Description</b>	<p><i>S. pyogenes</i> Cas9 is a type II-A Cas9 protein and is the most used in most current CRISPR-based genetic engineering methodologies. CRISPR RNAs (crRNAs) fused to trans-activating CRISPR RNAs (tracrRNA) direct sequence-specific cleavage by Cas9, introducing double-stranded breaks in cell-invading DNA in bacterial and archaeal CRISPR/Cas9 systems. Cas9 requires the 5'-NGG-3' protospacer adjacent motif (PAM) to destabilize the target DNA. Cas9's HNH endonuclease domain cleaves the strand complementary to the crRNA while its RuvC endonuclease domain cleaves the non-complementary strand.</p>
<b>Molecular Mass</b>	~156 kDa
<b>Purity</b>	>80%
<b>Stability</b>	One year at -70 centigrade from date of shipment.
<b>Storage</b>	Store product at -70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

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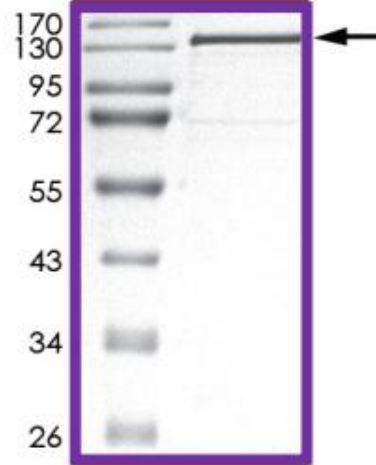
<b>Concentration</b>	0.5 µg/µL 6.26 pmol/µg
<b>Storage Buffer</b>	Recombinant protein stored in 50mM sodium phosphate, pH 8.0, 300mM NaCl, 150mM imidazole, 1mM DTT, 10% glycerol.
<b>Shipping</b>	On dry ice.
<b>GENE INFORMATION</b>	
<b>Official Symbol</b>	Cas9
<b>Synonyms</b>	Cas9; Csn1; Spy_1046
<b>UniProt ID</b>	<a href="#">X78809</a>
<b>Specific Activity</b>	 <p>The gel image shows three lanes labeled (a), (b), and (c). Lane (a) shows a band for the SpCas9 complex at approximately 500 bp and a band for the cleaved product at approximately 200 bp. Lane (b) shows a band for the DNA target at approximately 400 bp. Lane (c) shows a band for the DNA target at approximately 400 bp and a band for the cleaved product at approximately 200 bp. Molecular weight markers are indicated on the right at 700, 500, 400, 300, 200, and 75 bp.</p>

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Purity



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