

## Product datasheet for **SC311217**

### **p8 (NUPR1) (NM\_001042483) Human Untagged Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	p8 (NUPR1) (NM_001042483) Human Untagged Clone
Tag:	Tag Free
Symbol:	p8
Synonyms:	COM1; P8
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_001042483 edited CAAAGCGTTAGGAGAAGAAGAGAGGCAGGGAAGACAAGCCAGGCACGATGGCCACCTTCC CACCAGCAACCAGCGCCCCCAGCAGCCCCAGGCCGAGGACGAGGACTCCAGCCTGG ATGAATCTGACCTCTATAGCCTGGCCATTCTACCTCGGGCCTTCATCATGCCTATGC CTACTTCACCTCTGACTCCTGCCTTGGTTACAGGAGGTGGAGGCCGAAAAGGTCGCACCA AGAGAGAAGCTGCTGCCAACCAACCGCCCCAGCCCTGGCGGGCAGAGAGGAACTGG TGACCAAGCTGCAGAATTCAGAGAGGAAGAAGCGAGGGGCACGGCGCTGAGACAGAGCTG GAGATGAGGCCAGACCATGGACTACACCCAGCAATAGAGACGGGACTGCGGAGGAAGG AGGACCCAGGACAGGATCCAGGCCGGCTTGCCACACCCCCACCCCTAGGACTTATTCCC GCTGACTGAGTCTCTGAGGGGCTACCAGGAAAGCGCTCCAACCCTAGCAAAAAGTGAAG ATGGGGAGTGAGAGGCTGGGAATGGAGGGGCAGAGCCAGGAAGATCCCCAGAAAAGAAA GCTACAGAAGAACTGGGGCTCCTCCAGGGTGGCAGCAACAATA
Restriction Sites:	NotI-NotI
ACCN:	NM_001042483
Insert Size:	600 bp



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<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
<b>Components:</b>	<p>The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).</p>
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<p><a href="#">NM_001042483.1</a>, <a href="#">NP_001035948.1</a></p>
<b>RefSeq Size:</b>	<p>938 bp</p>
<b>RefSeq ORF:</b>	<p>303 bp</p>
<b>Locus ID:</b>	<p>26471</p>
<b>UniProt ID:</b>	<p><a href="#">O60356</a></p>
<b>Cytogenetics:</b>	<p>16p11.2</p>
<b>Protein Families:</b>	<p>Druggable Genome</p>

**Gene Summary:**

Transcription regulator that converts stress signals into a program of gene expression that empowers cells with resistance to the stress induced by a change in their microenvironment. Thereby participates in regulation of many process namely cell-cycle, apoptosis, autophagy and DNA repair responses (PubMed:16478804, PubMed:19650074, PubMed:16300740, PubMed:19723804, PubMed:11056169, PubMed:22858377, PubMed:11940591, PubMed:18690848, PubMed:22565310, PubMed:20181828, PubMed:30451898). Controls cell cycle progression and protects cells from genotoxic stress induced by doxorubicin through the complex formation with TP53 and EP300 that binds CDKN1A promoter leading to transcriptional induction of CDKN1A (PubMed:18690848). Protects pancreatic cancer cells from stress-induced cell death by binding the RELB promoter and activating its transcription, leading to IER3 transactivation (PubMed:22565310). Negatively regulates apoptosis through interaction with PTMA (PubMed:16478804). Inhibits autophagy-induced apoptosis in cardiac cells through FOXO3 interaction, inducing cytoplasmic translocation of FOXO3 thereby preventing the FOXO3 association with the pro-autophagic BNIP3 promoter (PubMed:20181828). Inhibits cell growth and facilitates programmed cell death by apoptosis after adriamycin-induced DNA damage through transactivation of TP53 (By similarity). Regulates methamphetamine-induced apoptosis and autophagy through DDIT3-mediated endoplasmic reticulum stress pathway (By similarity). Participates to DNA repair following gamma-irradiation by facilitating DNA access of the transcription machinery through interaction with MSL1 leading to inhibition of histone H4' Lys-16' acetylation (H4K16ac) (PubMed:19650074). Coactivator of PAX2 transcription factor activity, both by recruiting EP300 to increase PAX2 transcription factor activity and by binding PAXIP1 to suppress PAXIP1-induced inhibition on PAX2 (PubMed:11940591). Positively regulates cell cycle progression through interaction with COPS5 inducing cytoplasmic translocation of CDKN1B leading to the CDKN1B degradation (PubMed:16300740). Coordinates, through its interaction with EP300, the association of MYOD1, EP300 and DDX5 to the MYOG promoter, leading to inhibition of cell-cycle progression and myogenic differentiation promotion (PubMed:19723804). Negatively regulates beta cell proliferation via inhibition of cell-cycle regulatory genes expression through the suppression of their promoter activities (By similarity). Also required for LHB expression and ovarian maturation (By similarity). Exacerbates CNS inflammation and demyelination upon cuprizone treatment (By similarity). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longer isoform (a).