

## Product datasheet for **SC312144**

### **SPIRE2 (BC011119) Human Untagged Clone**

#### **Product data:**

<b>Product Type:</b>	Expression Plasmids
<b>Product Name:</b>	SPIRE2 (BC011119) Human Untagged Clone
<b>Tag:</b>	Tag Free
<b>Symbol:</b>	SPIRE2
<b>Synonyms:</b>	Spir-2
<b>Vector:</b>	<u>pCMV6 series</u>
<b>Fully Sequenced ORF:</b>	>NCBI ORF sequence for BC011119, the custom clone sequence may differ by one or more nucleotides
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	BC011119
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	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.
<b>Components:</b>	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).
<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>	<u>BC011119.1</u>
<b>RefSeq Size:</b>	1842 bp



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RefSeq ORF: 1842 bp

Locus ID: 84501

Cytogenetics: 16q24.3

Protein Pathways: Dorso-ventral axis formation

**Gene Summary:** Acts as an actin nucleation factor, remains associated with the slow-growing pointed end of the new filament (PubMed:21620703). Involved in intracellular vesicle transport along actin fibers, providing a novel link between actin cytoskeleton dynamics and intracellular transport (By similarity). Required for asymmetric spindle positioning and asymmetric cell division during meiosis (PubMed:21620703). Required for normal formation of the cleavage furrow and for polar body extrusion during female germ cell meiosis (PubMed:21620703). Also acts in the nucleus: together with SPIRE1 and SPIRE2, promotes assembly of nuclear actin filaments in response to DNA damage in order to facilitate movement of chromatin and repair factors after DNA damage (PubMed:26287480).[UniProtKB/Swiss-Prot Function]