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# DUX4 Antibody (Center) Blocking peptide
**Synthetic peptide**
**Catalog # BP11636c**

## Specification

### DUX4 Antibody (Center) Blocking peptide - Product Information

Primary Accession Q9UBX2

### DUX4 Antibody (Center) Blocking peptide - Additional Information

**Gene ID** 100288687

**Other Names**
Double homeobox protein 4 {ECO:0000312|HGNC:HGNC:50800}, Double homeobox protein 10 {ECO:0000312|EMBL:AAK915091}, DUX4 (<a href="http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=50800" target="_blank">HGNC:50800</a>), DUX10

**Format**
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### DUX4 Antibody (Center) Blocking peptide - Protein Information

**Name** DUX4 (HGNC:50800)

**Synonyms** DUX10

**Function**
[Isoform 1]: Transcription factor that is selectively and transiently expressed in cleavage-stage embryos (PubMed:<a href="http://www.uniprot.org/citations/28459457" target="_blank">28459457</a>). Binds to double-stranded DNA elements with the consensus sequence 5'- TAATCTAATCA-3' (PubMed:<a href="http://www.uniprot.org/citations/28459457" target="_blank">28459457</a>, PubMed:<a href="http://www.uniprot.org/citations/28459454" target="_blank">28459454</a>, PubMed:<a href="http://www.uniprot.org/citations/29572508" target="_blank">29572508</a>, PubMed:<a href="http://www.uniprot.org/citations/30540931" target="_blank">30540931</a>, PubMed:<a href="http://www.uniprot.org/citations/30315230" target="_blank">30315230</a>). Binds to chromatin containing histone H3 acetylated at 'Lys-27' (H3K27ac) and promotes deacetylation of H3K27ac. In parallel, binds to chromatin that lacks histone H3 acetylation at 'Lys-27' (H3K27ac) and recruits EP300 and CREBBP to promote acetylation of histone H3 at 'Lys-27' at new sites (PubMed:<a href="http://www.uniprot.org/citations/26951377" target="_blank">26951377</a>). Involved in

transcriptional regulation of numerous genes, primarily as transcriptional activator, but mediates also repression of a set of target genes (PubMed:<a href="http://www.uniprot.org/citations/17984056" target="_blank">17984056</a>, PubMed:<a href="http://www.uniprot.org/citations/27378237" target="_blank">27378237</a>, PubMed:<a href="http://www.uniprot.org/citations/26951377" target="_blank">26951377</a>, PubMed:<a href="http://www.uniprot.org/citations/28459457" target="_blank">28459457</a>, PubMed:<a href="http://www.uniprot.org/citations/28459454" target="_blank">28459454</a>, PubMed:<a href="http://www.uniprot.org/citations/29618456" target="_blank">29618456</a>, PubMed:<a href="http://www.uniprot.org/citations/30540931" target="_blank">30540931</a>, PubMed:<a href="http://www.uniprot.org/citations/29572508" target="_blank">29572508</a>). Promotes expression of ZSCAN4 and KDM4E, two proteins with essential roles during early embryogenesis (PubMed:<a href="http://www.uniprot.org/citations/27378237" target="_blank">27378237</a>, PubMed:<a href="http://www.uniprot.org/citations/26951377" target="_blank">26951377</a>, PubMed:<a href="http://www.uniprot.org/citations/28459457" target="_blank">28459457</a>, PubMed:<a href="http://www.uniprot.org/citations/29618456" target="_blank">29618456</a>). Heterologous expression in cultured embryonic stem cells mediates also transcription of HERVL retrotransposons and transcripts derived from ACRO1 and HSATII satellite repeats (PubMed:<a href="http://www.uniprot.org/citations/28459457" target="_blank">28459457</a>). May activate expression of PITX1 (PubMed:<a href="http://www.uniprot.org/citations/17984056" target="_blank">17984056</a>). May regulate microRNA (miRNA) expression (PubMed:<a href="http://www.uniprot.org/citations/24145033" target="_blank">24145033</a>). Inappropriate expression can inhibit myogenesis and promote apoptosis (PubMed:<a href="http://www.uniprot.org/citations/26951377" target="_blank">26951377</a>, PubMed:<a href="http://www.uniprot.org/citations/28935672" target="_blank">28935672</a>, PubMed:<a href="http://www.uniprot.org/citations/29618456" target="_blank">29618456</a>).

### Cellular Location
[Isoform 1]: Nucleus {ECO:0000255|PROSITE- ProRule:PRU00108, ECO:0000269|PubMed:15709750, ECO:0000269|PubMed:17984056, ECO:0000269|PubMed:21060811, ECO:0000269|PubMed:26951377, ECO:0000269|PubMed:27378237, ECO:0000269|PubMed:28459457, ECO:0000269|PubMed:29618456} Note=Actively transported through the nuclear pore complex (NPC)

### Tissue Location
Isoform 1: Does not seem to be expressed in normal muscle, but is detected in muscle of individuals with FSHD, and also in testis (at protein level) (PubMed:21060811, PubMed:17984056). Isoform 1: Does not seem to be expressed in normal muscle, but in muscle of individuals with FSHD, where it may be toxic to cells (PubMed:21060811, PubMed:17984056). Isoform 2: Detected in skeletal muscle, fibroblasts and testis from healthy individuals (PubMed:21060811)

## DUX4 Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

## DUX4 Antibody (Center) Blocking peptide - Images

## DUX4 Antibody (Center) Blocking peptide - Background

DUX4 may be involved in transcriptional regulation.