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Mouse Jarid2 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21537b

Specification

Mouse Jarid2 Blocking Peptide (C-term) - Product Information

Primary Accession Q62315

Mouse Jarid2 Blocking Peptide (C-term) - Additional Information

Gene ID 16468

Other Names
Protein Jumonji, Jumonji/ARID domain-containing protein 2, Jarid2, Jmj

Target/Specificity
The synthetic peptide sequence is selected from aa 1107-1121 of HUMAN Jarid2

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.

Mouse Jarid2 Blocking Peptide (C-term) - Protein Information

Name Jarid2

Synonyms Jmj

Function
Regulator of histone methyltransferase complexes that plays an essential role in embryonic development, including heart and liver development, neural tube fusion process and hematopoiesis (PubMed:10807864, PubMed:12852854, PubMed:12890668, PubMed:15542826, PubMed:15870077, PubMed:19010785, PubMed:20064375, PubMed:20064376, PubMed:20075857). Acts as an accessory subunit for the core PRC2 (Polycomb repressive complex 2) complex, which mediates histone H3K27 (H3K27me3) trimethylation on

chromatin (PubMed:20064375, PubMed:20064376). Binds DNA and mediates the recruitment of the PRC2 complex to target genes in embryonic stem cells, thereby playing a key role in stem cell differentiation and normal embryonic development (PubMed:20064375, PubMed:20075857). In cardiac cells, it is required to repress expression of cyclin-D1 (CCND1) by activating methylation of 'Lys-9' of histone H3 (H3K9me) by the GLP1/EHMT1 and G9a/EHMT2 histone methyltransferases (PubMed:12852854, PubMed:12890668, PubMed:19010785). Also acts as a transcriptional repressor of ANF via its interaction with GATA4 and NKX2-5 (PubMed:15542826). Participates in the negative regulation of cell proliferation signaling (PubMed:10913339). Does not have histone demethylase activity (PubMed:20064376).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00355, ECO:0000255|PROSITE-ProRule:PRU00537, ECO:0000269|PubMed:10807864, ECO:0000269|PubMed:10913339, ECO:0000269|PubMed:20064375, ECO:0000269|PubMed:20064376}. Note=Colocalizes with the PRC2 complex on chromatin

Tissue Location
Widely expressed in embryos. In adults, expressed at high levels in heart, skeletal muscle, brain and thymus

Mouse Jarid2 Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides

Mouse Jarid2 Blocking Peptide (C-term) - Images

Mouse Jarid2 Blocking Peptide (C-term) - Background

Regulator of histone methyltransferase complexes that plays an essential role in embryonic development, including heart and liver development, neural tube fusion process and hematopoiesis. Acts by modulating histone methyltransferase activity and promoting the recruitment of histone methyltransferase complexes to their target genes. Binds DNA and mediates the recruitment of the PRC2 complex to target genes in embryonic stem cells. Does not have histone demethylase activity but regulates activity of various histone methyltransferase complexes. In embryonic stem cells, it associates with the PRC2 complex and inhibits trimethylation of 'Lys-27' of histone H3 (H3K27me3) by the PRC2 complex, thereby playing a key role in differentiation of embryonic stem cells and normal development. In cardiac cells, it is required to repress expression of cyclin-D1 (CCND1) by activating methylation of 'Lys-9' of histone H3 (H3K9me) by the GLP1/EHMT1 and G9a/EHMT2 histone methyltransferases. Also acts as a transcriptional repressor of ANF via its interaction with GATA4 and NKX2-5. Participates in the negative regulation of cell proliferation signaling.

Mouse Jarid2 Blocking Peptide (C-term) - References

Takeuchi T.,et al.Genes Dev. 9:1211-1222(1995).

Carninci P.,et al.Science 309:1559-1563(2005).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Motoyama J.,et al.Mech. Dev. 66:27-37(1997).
Takeuchi T.,et al.Mech. Dev. 86:29-38(1999).