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VEGFA Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM01979

Basic Information

Catalog No.
RM01979

Category
Cell Lysate

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Gene Symbol
VEGFA

Species
Human

Gene ID
7422

Swiss Prot
P15692

Synonyms
MVCD1; VEGF; VPF

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Background

This gene is a member of the PDGF/VEGF growth factor family. It encodes a heparin-binding protein, which exists as a disulfide-linked homodimer. This growth factor induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Disruption of this gene in mice resulted in abnormal embryonic blood vessel formation. This gene is upregulated in many known tumors and its expression is correlated with tumor stage and progression. Elevated levels of this protein are found in patients with POEMS syndrome, also known as Crow-Fukase syndrome. Allelic variants of this gene have been associated with microvascular complications of diabetes 1 (MVCD1) and atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have been described. There is also evidence for alternative translation initiation from upstream non-AUG (CUG) codons resulting in additional isoforms. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is antiangiogenic. Expression of some isoforms derived from the AUG start codon is regulated by a small upstream open reading frame, which is located within an internal ribosome entry site. [provided by RefSeq, Nov 2015]

Product Information

Description
VEGFA Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.
Allele-1:73bp deletion in exon3
Allele-2:73bp deletion in exon3
Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging
1 vial parental cell Lysate and 1 vial knockout cell Lysate

Shipping Conditions
4℃

Amount
50μL, 2μg/μL.

Storage
Store at -20℃

Protocol
To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

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WT    CCATCCAATCGAGA**************GCGATGCGGGGGCT
Mut   CCATCCAATCGAGA***Deletion***GCGATGCGGGGGCT
Allele-1：73bp deletion in exon3

WT    CCATCCAATCGAGA**************GCGATGCGGGGGCT
Mut   CCATCCAATCGAGA***Deletion***GCGATGCGGGGGCT
Allele-2：73bp deletion in exon3
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Genome sequence analysis of PCR products from parental (WT) and VEGFA knockout (KO) HeLa cells, using sanger sequencing.