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PTPN1 Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM02496

Basic Information

Catalog No.
RM02496

Category
Cell Lysate

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Gene Symbol
PTPN1

Species
Human

Gene ID
5770

Swiss Prot
P18031

Synonyms
PTP1B

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Background

The protein encoded by this gene is the founding member of the protein tyrosine phosphatase (PTP) family, which was isolated and identified based on its enzymatic activity and amino acid sequence. PTPs catalyze the hydrolysis of the phosphate monoesters specifically on tyrosine residues. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP has been shown to act as a negative regulator of insulin signaling by dephosphorylating the phosphotryosine residues of insulin receptor kinase. This PTP was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of this PTP in cell growth control, and cell response to interferon stimulation. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2013]

Product Information

Description
PTPN1 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.
Allele-1:106bp deletion in exon3
Allele-2:106bp 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    TAAAATGCGCACAA**********AATTGGAAAACCTT
Mut   TAAAATGCGCACAA***Deletion***AATTGGAAAACCTT
Allele-1:   106bp deletion in exon3

WT    TAAAATGCGCACAA**********AATTGGAAAACCTT
Mut   TAAAATGCGCACAA***Deletion***AATTGGAAAACCTT
Allele-2:   106bp deletion in exon3
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Genome sequence analysis of PCR products from parental (WT) and PTPN1 knockout (KO) HeLa cells, using sanger sequencing.