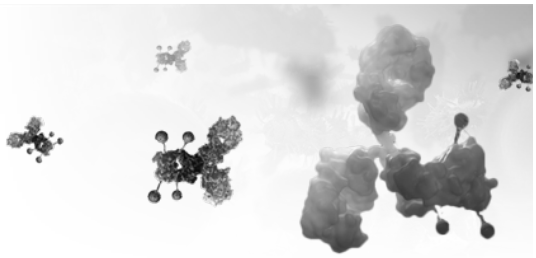

Mouse anti-Human KNP-1 monoclonal antibody, clone 46/LOQ-2/IFT2 (CABT-B9229)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human ES1 aa. 49-240
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Mouse, Rat, Dog, Chicken
Clone	46/LOQ-2/IFT2
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 µg/ml
Size	50 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction	Human chromosome 21 has been extensively studied because trisomy 21 causes Down

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	syndrome. In addition to this syndrome, chromosome 21 is the loci for five other hereditary disorders, myoclonus epilepsy, autoimmune polyglandular disease type I, nonsyndromic hereditary deafness, Knobloch syndrome, and bipolar affective disorder. Exon trapping studies of human chromosome 21q22.3 identified transcriptional units with homology to the zebrafish ES1 and the E. coli sigma cross-reacting protein 27A (SCRP27A). The human ES1 homolog (HES1) was also identified as KNP-1α/KNP-1β, as well as GT335 in similar screens for genes involved in disorders that map to chromosome 21q22.3. KNP-1/HES1 mRNA is ubiquitously expressed with the highest expression in muscle and heart. KNP-1/HES1 protein contains putative mitochondrial targeting signals and localizes to mitochondria in mouse NIH 3T3 cells. Interestingly, mitochondrial deletions have been implicated in syndromes related to deafness. Thus, KNP-1/HES1 may be a mitochondrial protein important for normal development, and may be a candidate gene for disorders related to deletions at chromosome 21q22.3.
Keywords	C21ORF33; chromosome 21 open reading frame 33; ES1 protein homolog, mitochondrial; D21S2048E; ES1; GT335; HES1; KNP I; KNP Ia; KNPH; KNPI; Keio novel protein I; human HES1 protein, homolog to E.coli and zebrafish ES1 protein;

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