diagenode
Innovating Epigenetics Solutions

TECHNICAL DATASHEET

GTF2E2 polyclonal antibody - Classic

Other names: TF2E2, TFIIE-beta, TFIIE-B, FE

Cat. No. C15410264

Type: Polyclonal **ChIP-grade/ChIP-seq grade**

Source: Rabbit

Lot #: 40723

Size: 25 µl/100 µl

Concentration: 1 µg/µl

Specificity: Human: positive
Over species: not tested

Purity: Affinity purified polyclonal antibody in PBS containing 1% BSA, 20% glycerol and 0.01% thimerosal.

Storage: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

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

Description
Polyclonal antibody raised in rabbit against GTF2E2 (General Transcription Factor IIE Subunit 2), using a recombinant protein.

Applications

	Suggested dilution*	Results
ChIP	2-5 µg/ChIP	Figure 1, 2
Western blotting	1:1,000 - 1:10,000	Figure 3
Immunoprecipitation	2.5 µg per IP	Figure 4

* Please note that the optimal antibody amount per IP should be determined by the end-user. We recommend testing 1-5 µg per IP.

Target description

GTF2E2 (UniProt/Swiss-Prot entry P29084) is a general transcriptional factor which is required for promoter clearance by RNA polymerase. It binds to the transcriptional initiation complex and stimulates the RNA polymerase II C-terminal domain kinase and DNA-dependent ATPase activities of GTF2H.

Results

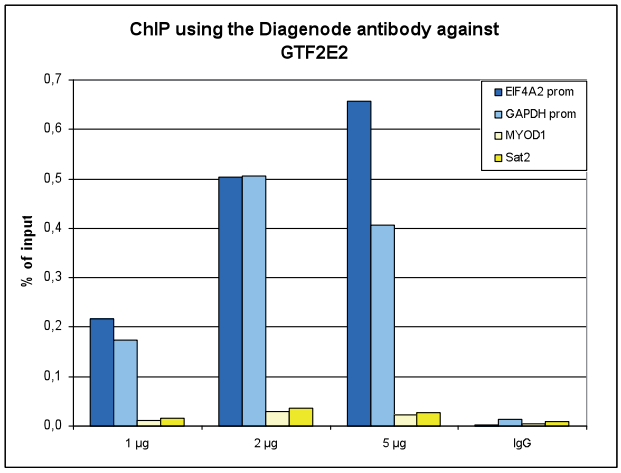

Figure 1. ChIP results obtained with the Diagenode antibody directed against GTF2E2

ChIP assays were performed using HeLa cells, the Diagenode antibody against GTF2E2 (Cat. No. C15410264) and optimized primer sets for qPCR. ChIP was performed with the "iDeal ChIP-seq" kit (Cat. No. C01010055), using sheared chromatin from 4 million cells. A titration of the antibody consisting of 1, 2 and 5 µg per ChIP experiment was analysed. IgG (1 µg/IP) was used as negative IP control. QPCR was performed with primers for the promoters of the GAPDH and EIF4A2 genes, used as positive controls, and for the MYOD1 gene and the Sat2 satellite repeat, used as negative controls. Figure 1 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).

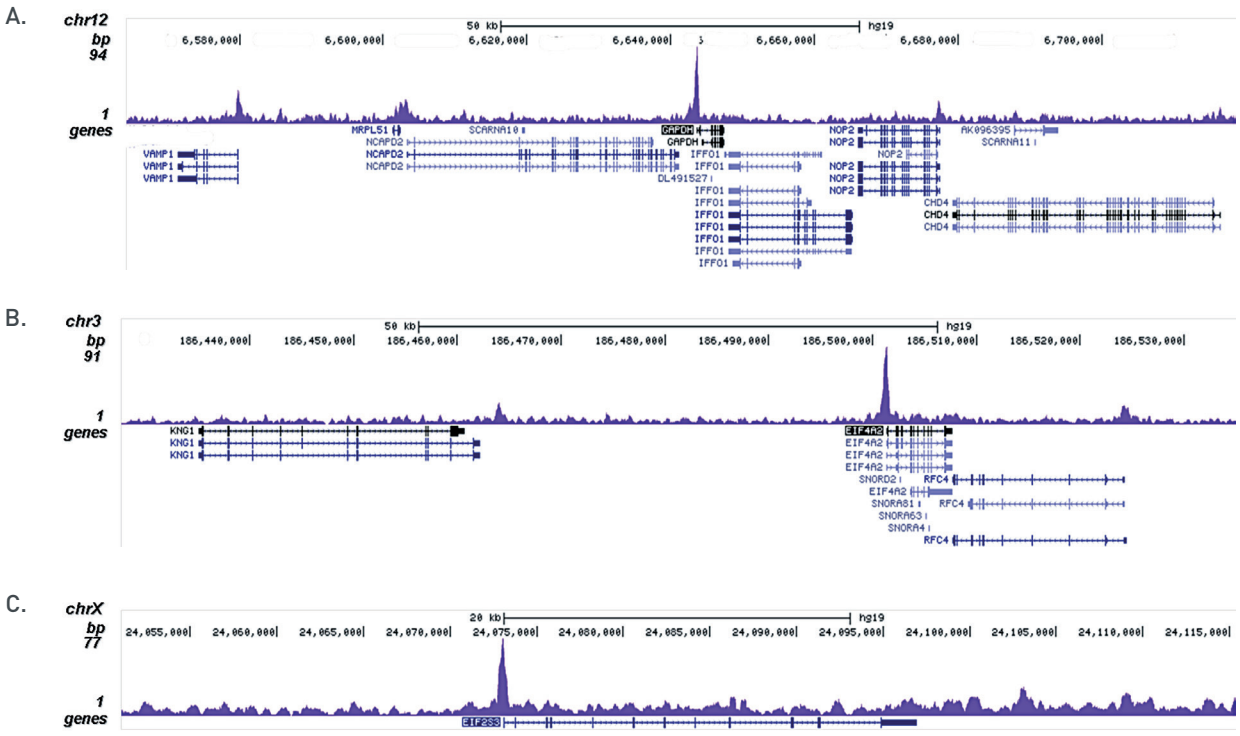

Figure 2. ChIP-seq results obtained with the Diagenode antibody directed against GTF2E2

ChIP was performed on sheared chromatin from 4 million HeLa cells using 5 µg of the Diagenode antibody against GTF2E2 (Cat. No. C15410264) as described above. The IP'd DNA was subsequently analysed on an Illumina HiSeq. Library preparation, cluster generation and sequencing were performed according to the manufacturer's instructions. The 50 bp tags were aligned to the human genome using the BWA algorithm. Figure 2 shows the ChIP-seq signal in three genomic regions surrounding the GAPDH and EIF4A2 positive control genes (fig 2A and B) and the EIF3S2 gene (fig 2C).

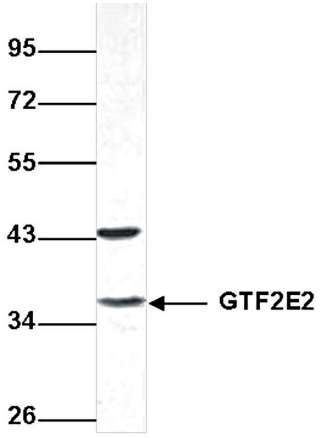

Figure 3. Western blot analysis using the Diagenode antibody directed against GTF2E2

Whole cell extracts from Jurkat cells (30 µg) were analysed by Western blot using the Diagenode antibody against GTF2E2 (Cat. No. C15410264) diluted 1:5,000. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.

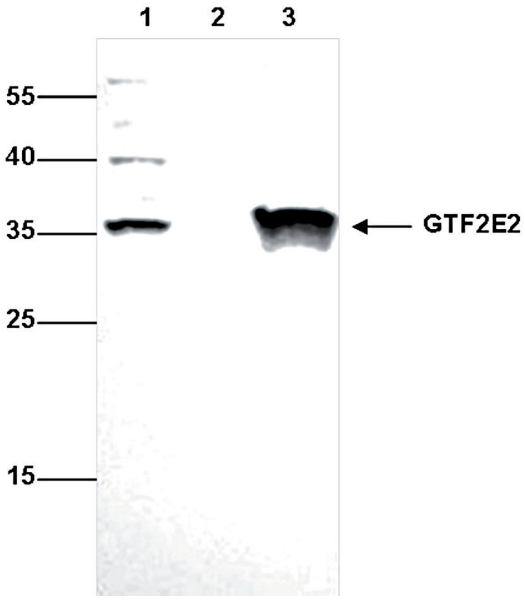

Figure 4. Immunoprecipitation using the Diagenode antibody directed against GTF2E2

Immunoprecipitation was performed on whole cell extracts from Jurkat cells using 2.5 µg of the Diagenode antibody against GTF2E2 (Cat. No. C15410264). An equal amount of rabbit IgG was used as a negative control. The immunoprecipitated GTF2E2 protein was detected by western blot with the GTF2E2 antibody diluted 1:1,000. The IP with the GTF2E2 antibody and with the IgG negative control are shown in lane 3 and lane 2, respectively. Lane 1 shows the input (30 µg of Jurkat whole cell extract).

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Last update: April 16, 2015