

GCF (T-14): sc-133419

BACKGROUND

GCF (GC-rich sequence DNA-binding factor), also known as C2orf3 (chromosome 2 open reading frame 3), transcription factor 9 (TCF-9) or DNABF, is a 781 amino acid nuclear protein that belongs to the GCF family. Widely expressed, GCF binds the GC-rich sequences of β -Actin, EGFR and calcium-dependent protease (CANP) promoters. GCF contains multiple phosphoserine and phosphothreonine residues, and two GCF isoforms are produced due to alternative splicing events. GCF is considered a candidate for susceptibility to dyslexia (DYX3) as both genes reside in close proximity on human chromosome 2. Chromosome 2 is the second largest human chromosome and consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome.

REFERENCES

1. Kageyama, R. and Pastan, I. 1989. Molecular cloning and characterization of a human DNA binding factor that represses transcription. *Cell* 59: 815-825.
2. Johnson, A.C., et al. 1992. Expression and chromosomal localization of the gene for the human transcriptional repressor GCF. *J. Biol. Chem.* 267: 1689-1694.
3. Beguinot, L., et al. 1995. Biochemical characterization of human GCF transcription factor in tumor cells. *Cell Growth Differ.* 6: 699-706.
4. Takimoto, M., et al. 1999. Molecular analysis of the GCF gene identifies revisions to the cDNA and amino acid sequences. *Biochim. Biophys. Acta* 1447: 125-131.
5. Mao, P. 1999. Revisions of the cDNA and primary protein structure of human transcription factor GCF. *Hokkaido Igaku Zasshi* 74: 315-330.

CHROMOSOMAL LOCATION

Genetic locus: C2orf3 (human) mapping to 2p12; AW146020 (mouse) mapping to 6 C3.

SOURCE

GCF (T-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of GCF of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133419 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-133419 X, 200 μ g/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

GCF (T-14) is recommended for detection of GCF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GCF (T-14) is also recommended for detection of GCF in additional species, including equine.

Suitable for use as control antibody for C2orf3 siRNA (h): sc-94282, GCF siRNA (m): sc-141404, C2orf3 shRNA Plasmid (h): sc-94282-SH, GCF shRNA Plasmid (m): sc-141404-SH, C2orf3 shRNA (h) Lentiviral Particles: sc-94282-V and GCF shRNA (m) Lentiviral Particles: sc-141404-V.

GCF (T-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

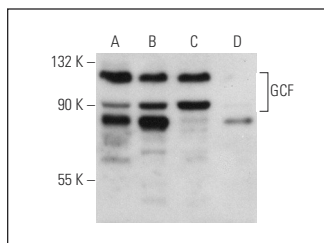
Molecular Weight of GCF: 120 kDa.

Positive Controls: ES-2 cell lysate: sc-24674, HeLa whole cell lysate: sc-2200 or PC-3 cell lysate: sc-2220.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GCF (T-14): sc-133419. Western blot analysis of GCF expression in HeLa (A), ES-2 (B), PC-3 (C) and MIA PaCa-2 (D) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.