

# GCF (K-13): sc-133418

## 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  $\beta$ -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 (DYG3) 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 (K-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of GCF of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-133418 P, (100  $\mu$ 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-133418 X, 200  $\mu$ 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 (K-13) 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  $\mu$ g per 100-500  $\mu$ 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).

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 (K-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

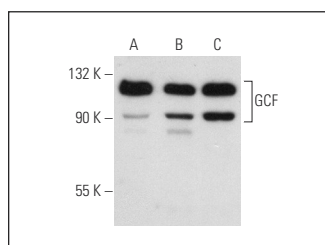
Molecular Weight of GCF: 120 kDa.

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 (K-13): sc-133418. Western blot analysis of GCF expression in HeLa (A), ES-2 (B) and PC-3 (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.