

## DREAM (1-214): sc-4520 WB

### BACKGROUND

DREAM (for DRE-antagonist modulator) is a  $\text{Ca}^{2+}$ -regulated transcriptional repressor that specifically binds to the downstream regulatory elements (DRE). DRE is a regulatory sequence that silences basal transcription and is localized to the promoter region of the gene encoding human prodynorphin, an opioid peptide involved in memory acquisition and pain. DREAM forms functional homotetramers that are required for the interaction with the DRE. This association is highly influenced by calcium, as increases in  $\text{Ca}^{2+}$  directly inhibits DREAM binding, and thereby blocks the repressor activity of DREAM. DREAM transcripts are detected in brain, thymus and thyroid gland, and it is expressed as nuclear protein. DREAM has been shown to inhibit transcription of other proteins containing DRE-like motifs, including the gene encoding for the AP-1 transcription factor c-fos, suggesting that DREAM may influence a wide variety of cellular genes.

### REFERENCES

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### SOURCE

DREAM (1-214) is expressed in *E. coli* as a 51 kDa tagged fusion protein corresponding to amino acids 1-214 representing full length DREAM protein of human origin.

### PRODUCT

DREAM (1-214) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10  $\mu\text{g}$  in 0.1 ml SDS-PAGE loading buffer.

### APPLICATIONS

DREAM (1-214) is suitable as a Western blotting control for sc-9142.

### STORAGE

Store at  $-20^{\circ}\text{C}$ ; stable for one year from the date of shipment.

### RESEARCH USE

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