



DELTA SLEEP INDUCING PEPTIDE (DSIP)

Delta Sleep Inducing Peptide (DSIP) is a naturally occurring somnogenic nonapeptide with physiological functions impacting neuromodulation.

DSIP is typically found in the brain and easily passes the blood-brain barrier.

Studies indicate that DSIP and its analogs are best classified as peptide neuromodulators.

DSIP has been shown to exhibit a pronounced stress-protective action and demonstrated a decrease in stress-induced metabolic disorders in both human and animal models. It is believed that DSIP works by modulating the activity of GABAergic, glutamatergic, and other neuronal systems.

In several studies, DSIP at low doses has been shown to promote sleep. Although its physiological role remains to be clarified, DSIP illustrates several concepts applicable to other brain peptides. These include the bell-shaped dose-response curve, central effects after peripheral administration, a delayed and prolonged-time course, and some penetration of the blood-brain barrier in essentially intact form. Concepts applicable to one neuropeptide, therefore, appear to be applicable to others.

