

DSIP

DSIP (delta sleep-inducing peptide) is a nonapeptide first isolated in the 1970s from the blood of rabbits in which sleep had been induced. Its physiological role and receptor remain unresolved, and human evidence is limited.



 Hydrophobic  Acidic  Basic  Polar  Gly, Pro, Cys  Non-standard

Length	9 residues
Formula	$C_{35}H_{48}N_{10}O_{15}$
Average mass	848.81 g/mol
Monoisotopic mass	848.3301 Da
Evidence	Early clinical studies
US status	Not FDA-approved; PCAC did not support 503A listing (July 2026)
WADA	Check the current Prohibited List

Nonapeptide (emideltide).

Expected ions (monoisotopic)

$[M+H]^+$	$[M+2H]^{2+}$	$[M+3H]^{3+}$	$[M+4H]^{4+}$
849.3373	425.1723	283.7840	213.0898

What the COA should show

A DSIP certificate of analysis should confirm identity by mass spectrometry against the expected mass shown on this page and report HPLC purity with a chromatogram. Compound-specific concerns include oxidation of the N-terminal tryptophan, which produces mass-shifted species, and aspartate-related degradation products such as isoaspartate or succinimide forms, which can be difficult to separate from the parent peptide. The salt form, net peptide content and water content should be reported. The FDA committee's discussion highlighted that characterization of peptides in this class is an ongoing concern.

Storage and stability

Store lyophilized DSIP sealed at -20 °C or below, protected from light and moisture. Light protection matters because tryptophan is photosensitive. Solutions are less stable than the dry powder because of possible aspartate-related degradation, so prepare them close to use, keep them cold, aliquot them and avoid repeated freeze-thaw cycles.

Full entry, references and latest research: <https://peptidewiki.net/compounds/dsip/>
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