BACKGROUND
PNAd, protein N-terminal asparagine amidohydrolase, is a 310 amino acid protein encoded by the human gene NTAN1. PNAd is responsible for the side-chain deamidation of N-terminal asparagine residues to aspartate. It is required for the ubiquitin-dependent turnover of intracellular proteins that initiate with Met-Asn. These proteins are acetylated on the retained initiator methionine and can subsequently be modified by the removal of N-acetyl methionine by acylaminocoid hydrolase (AAH). Conversion of the resulting N-terminal asparagine to aspartate by PNAd renders the protein susceptible to arginylation, polyubiquitination and degradation as specified by the N-end rule. This enzyme does not act on substrates with internal or C-terminal asparagines and does not act on glutamine residues in any position.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: NTAN1 (human) mapping to 16p13.11; Ntan1 (mouse) mapping to 16 A1.

SOURCE
PNAd (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PNAd of human origin.