BACKGROUND
The gene encoding a novel type of pituitary-specific transcription factor, Prophet of Pit-1 (Prop1), is a causative agent in combined pituitary hormone deficiency. Prop1 is expressed in normal pituitary gland, but is absent from normal brain tissue, glioblastomas (cell lines and tumor tissues) and meningioma. Prop1 is also expressed in both the pituitary tumors and normal human adult pituitary tissues, suggesting that Prop1 is an essential transcription factor for pituitary specific gene expression in human. Therefore, detection of Prop1 might be an indicator for differentiating pituitary adenomas, regardless of their hormonal phenotypes, in respect to other brain tumors. Mutations in the Prop1 gene can also result in abnormal pituitary development in humans, leading to multiple hormone deficiencies. Furthermore, the DNA symmetry in the Prop-1 gene contributes to the frequency with which this gene is mutated. The finding that mutations in this gene in humans can result in both hypothalamic defects and defects in gonadotropin secretion suggests that this protein may have important functions during development.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: PROPI (human) mapping to 5q35.3; Prop1 (mouse) mapping to 11 B1.3.

SOURCE
Prop-1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Prop-1 of human origin.

STORAGE
Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.