BACKGROUND
Calcium-dependent secretion activators (CAPS-1 and CAPS-2) are calcium-binding proteins that direct neurotransmitter and neuropeptide-filled vesicles to the cell membrane for secretory granule exocytosis. Both CAPS-1 and CAPS-2 are expressed primarily in the brain where they regulate the secretion of various substances. The CAPS proteins contain a PH domain that is essential for regulation of exocytosis, as well as regulation of phospholipid binding. Through their regulation of neurotrophin release from granule cells, CAPS proteins help to regulate cell fate during neuronal development. CAPS-1 is thought to regulate catecholamine release from neuronal cells, while CAPS-2 is thought to regulate release of both brain-derived neurotrophic factor and neurotrophin-3 from granule cells. Defects in the genes encoding CAPS-1 and CAPS-2 are implicated in impaired cerebral development and autism.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: CADPS (human) mapping to 3p14.2; Cadps (mouse) mapping to 14 A2.

SOURCE
CAPS-1 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CAPS-1 of human origin.