

**Caspase Substrate Set IV, Fluorogenic - Calbiochem Ready-to-use substrates for assaying the activity of various members of the caspase-family proteases.**

Art. ID SAF-218809-1SET

Unit 1 x 1 SET

**Description**

Apoptosis is a normal process in development and morphogenesis. However, improperly regulated apoptosis can contribute to several pathological conditions including cancer, Alzheimer's disease, spinal muscular atrophy, ischemic cardiac damage, and autoimmune syndromes. Many cells can be activated to undergo apoptosis following the interaction of selected ligands with cell surface receptors. Receptor-mediated apoptosis involves the catalysis of preexisting intracellular caspase proenzymes into activated caspases (cysteine-containing aspartate-specific proteases). A distinctive feature of caspases is the requirement of an aspartic acid residue in the substrate P1 position. The P4 residue is important in substrate recognition and specificity. For example, caspase-1 prefers a hydrophobic tyrosine residue in the P4 position, but caspase-3 prefers an anionic aspartic residue. Caspase activity can be assayed using a fluorophore (AFC). Liberation of the fluorophore from the substrate is monitored to determine caspase activity. Supplied with a data sheet. This convenient set of caspase substrates contains the following components, each at a concentration of 1 mM in DMSO: Ready-to-use substrates for assaying the activity of various members of the caspase-family proteases. Contains 125 µl (1 mM) each of Caspase-1 Substrate VI, Ac-YVAD-AFC (Cat. No. 688224), Caspase-2 Substrate I, Ac-VDVAD-AFC (Cat. No. 218740), Caspase-3 Substrate IV, Ac-DEVD-AFC (Cat. No. 264150), Caspase-5 Substrate II, Ac-WEHD-AFC (Cat. No. 218754), Caspase-6 Substrate III, Ac-VEID-AFC (Cat. No. 218763), Caspase-8 Substrate I, Z-IETD-AFC (Granzyme B Substrate II, Cat. No. 368059), and Caspase-9 Substrate I, Ac-LEHD-AFC (Cat. No. 218765). Supplied with a data sheet.