HtrA2 Antibody

For Research Use Only. Not For Use In Diagnostic Procedures.

**Background:** HtrA2 (High temperature requirement protein A2)/Omi is a serine protease with homology to the E. coli/HtrA protein (DegP) and is thought to be involved in apoptosis and stress induced degradation of misfolded proteins (1). While HtrA2 was originally identified to be present in either the nucleus (1) or endoplasmic reticulum (2), subsequent studies have shown it to be located in mitochondria and released during apoptosis (3–7). HtrA2 is produced as a 50 kDa zymogen that is cleaved to generate a 36 kDa mature protein that exposes an amino terminal motif (AVPS) resembling that of the IAP inhibitor Smac/Diablo (3–7). Like Smac, interaction between HtrA2 and IAP family members such as XIAP antagonizes their inhibition of caspase activity and protection from apoptosis (3–7). Interestingly, HtrA2 knock-out mice did not show signs of reduced apoptosis, but rather showed a loss of neurons in the striatum and a Parkinson’s-like phenotype, suggesting that HtrA2 might have a neuroprotective function (9–11). This activity is associated with the protease activity of HtrA2 (9). Furthermore, loss of function mutations in the HtrA2 gene have been found in Parkinson’s disease (12).

**Specificity/Sensitivity:** HtrA2 Antibody detects endogenous levels of the mature form of HtrA2. This antibody is expected to also recognize the unprocessed form of HtrA2. The unprocessed form is detected in cells overexpressing HtrA2.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe341 of HtrA2.

**Background References:**

**Recommended Antibody Dilutions:**
Western blotting 1:1000

**For application specific protocols please see the web page for this product at www.cellsignal.com. Please visit www.cellsignal.com for a complete listing of recommended companion products.**

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C.

*Species cross-reactivity is determined by western blot.
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Important: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.