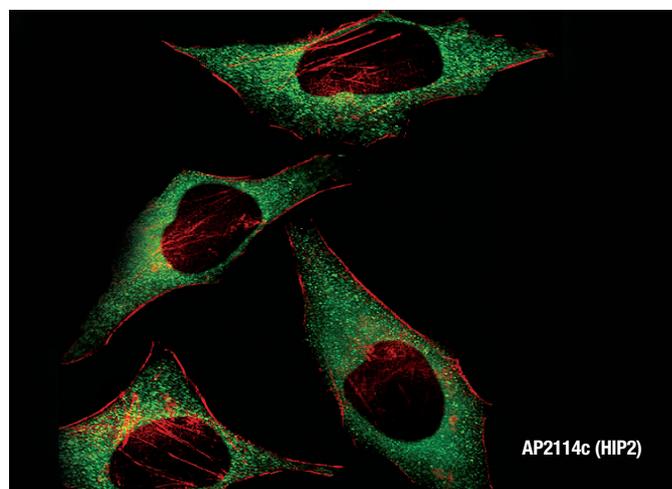
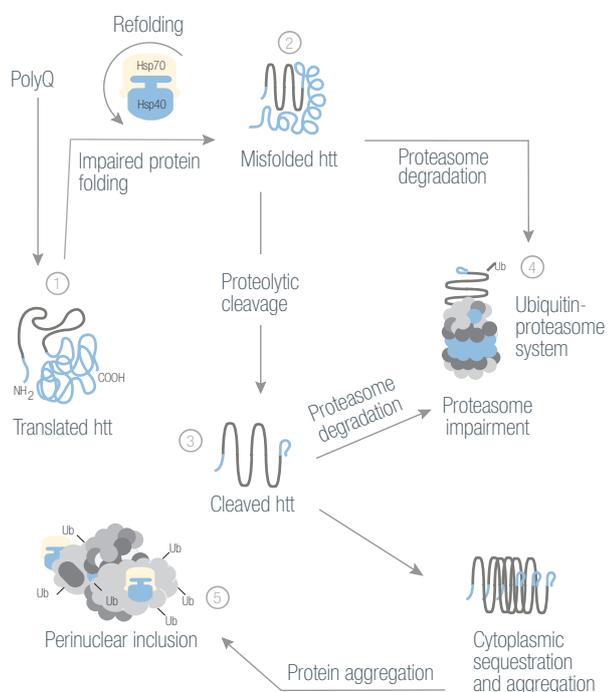


Introduction

HIP2 or Ubiquitin-conjugating enzyme E2 K is a protein that in humans is encoded by the UBE2K gene. UBE2K belongs to the ubiquitin-conjugating enzyme family: it accepts ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins. It was shown to mediate the selective degradation of short-lived and abnormal proteins, such as the endoplasmic reticulum-associated degradation (ERAD) of misfolded luminal proteins. HIP2 is expressed in all tissues but has high levels in brain, especially in cortex and striatum and at lower levels in cerebellum and brainstem. HIP2 was shown to bind selectively to a large region at the N terminus of huntingtin protein leading to its proteasomal degradation (see stage 4 in molecular model). Dysfunction of HIP2 activity causes inhibition of proteasome activity and intraneuronal accumulation of ubiquitin conjugates. Consequently, HIP2 is implicated in toxicity of neurodegenerative disorders.



Fluorescent image of HeLa cell stained with HIP2 Antibody (Center) (Cat#AP2114c/SH030911H). HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with HIP2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml, 1 h at 37°C). HIP2 is localized to cytoplasm.



Selected Abgent Products

CAT. #	TARGET NAME
AP1229a	Ubiquitin Antibody (C-term)
AP2113b	E1 Ubiquitin (UBE1) Antibody (C-term)
AP2126e	UCHL1 Antibody (C-term)
AJ1385a	Huntingtin (HTT) Antibody
AP6401b	SNCA Antibody (C-term) - Product info
AP6118a	Huntingtin Associated Protein 1 (HAP1) antibody
AT3672a	RNF2 Antibody (monoclonal) (M01)
AP7911d	ASK1 (MEKK5/MAP3K5) Antibody (S1033)
AJ1425a	JNK2 Antibody
AP1290a	Pan SUMO Antibody

Visual categorization

Target associated (orange)



Autophagy Stem Cell Neurodegeneration