



Rat Ubiquitin carboxyl-terminal hydrolase isozyme L1(UCHL1) ELISA kit

Product Code	CSB-EL025541RA
Abbreviation	UCHL1
Protein Biological Process 1	Ubiquitin
Target Name	ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase)
Uniprot No.	Q00981
Alias	PARK5, PGP9.5, PGP95, Uch-L1, neuron cytoplasmic protein 9.5 ubiquitin C-terminal hydrolase ubiquitin carboxyl-terminal esterase L1
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Protein Biological Process 3	Ubl conjugation pathway
Sample Types	serum, plasma, tissue homogenates, cell lysates
Detection Range	0.78 ng/mL-50 ng/mL
Sensitivity	0.195 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cell Biology
Gene Names	Uchl1
Tag Info	quantitative
Protein Description	Sandwich

Description

The Rat Ubiquitin carboxyl-terminal hydrolase isozyme L1 (UCHL1) ELISA Kit, a highly sensitive and specific assay for the quantitative detection of UCHL1 in serum, plasma, tissue homogenates, and cell lysates from the Rat species.

UCHL1, plays an important role in ubiquitin-proteasome system, is a protein that plays a crucial role in the regulation of cellular processes such as protein degradation and cell signaling. Dysregulation of UCHL1 has been implicated in various diseases, including Parkinson's disease and cancer. Our UCHL1 ELISA Kit offers a reliable and efficient means of measuring UCHL1 levels in biological samples, with a detection range of 0.78 ng/mL to 50 ng/mL and a sensitivity of



0.195 ng/mL.

The assay principle of our UCHL1 ELISA Kit is based on the sandwich method. During the assay process, UCHL1 in the sample is sandwiched between two UCHL1-specific antibodies, which are coated on the plate. The bound UCHL1 is then detected using a detection antibody conjugated with HRP and a chromogenic substrate, producing a colorimetric signal that is directly proportional to the UCHL1 concentration.

This UCHL1 ELISA Kit offers a quick assay time of 1-5 hours, with a sample volume of 50-100ul and a detection wavelength of 450 nm. It is suitable for use in cell biology research and has been optimized for use with Rat samples. Its quantitative assay principle, coupled with its wide detection range and high sensitivity, make it an invaluable tool for researchers studying the physiological and pathological roles of UCHL1 in cellular processes.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of rat UCHL1 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:1	Average %	89
	Range %	84-93
1:2	Average %	101
	Range %	98-106
1:4	Average %	89
	Range %	85-93
1:8	Average %	104
	Range %	100-108

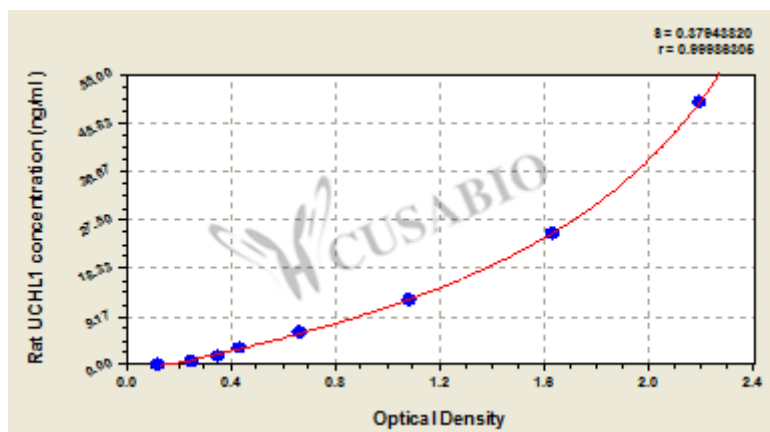
Recovery

The recovery of rat UCHL1 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	85	80-90
EDTA plasma (n=4)	96	93-99

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



ng/ml	OD1	OD2	Average	Corrected
50	2.196	2.174	2.185	2.050
25	1.618	1.635	1.627	1.492
12.5	1.071	1.098	1.085	0.950
6.25	0.682	0.654	0.668	0.533
3.12	0.450	0.436	0.443	0.308
1.56	0.356	0.368	0.362	0.227
0.78	0.251	0.265	0.258	0.123
0	0.134	0.136	0.135	

Msds

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