

Product datasheet for **TA397429S**

His2Av Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	WB: 1:500 - 1:2,000 IHC: 2 ug/ml ELISA: 1:4,000 - 1:20,000
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Histone H2AvD pS137 Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-Terminal region near amino acids 125-141 of Drosophila melanogaster (fruit fly) H2AvD protein.
Specificity:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Variant histones H2A are synthesized throughout the cell cycle and are very different from classical S-phase regulated H2A. H2AvD is vital for viability, but the exact function of variant histones H2A is not known. H2A is a core component of the nucleosome, an octamer containing two molecules each of H2A, H2B, H3 and H4. The octamer wraps approximately 146 bp of DNA. HsAvD is expressed both maternally and zygotically and is found in embryos through to adults (female only). The human homologue, H2AX, is phosphorylated by ATM protein kinase when double strand DNA breaks occur. In mouse, H2AX "knock out" mice have an increased incidence of cancer.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.0 mg/mL - lot specific
Conjugation:	Unconjugated
Storage:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Stability:	Expiration date is one (1) year from date of receipt.



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Background: Variant histones H2A are synthesized throughout the cell cycle and are very different from classical S-phase regulated H2A. H2AvD is vital for viability, but the exact function of variant histones H2A is not known. H2A is a core component of the nucleosome, an octamer containing two molecules each of H2A, H2B, H3 and H4. The octamer wraps approximately 146 bp of DNA. HsAvD is expressed both maternally and zygotically and is found in embryos through to adults (female only). The human homologue, H2AX, is phosphorylated by ATM protein kinase when double strand DNA breaks occur. In mouse, H2AX "knock out" mice have an increased incidence of cancer.

Synonyms: rabbit anti-H2AvD pS137 antibody, rabbit anti-Histone H2A.v pS137 antibody, H2AvD protein antibody, H2A.F/Z, H2A.Z, H2AvD, His2AvD, His2Av

Note: Histone H2AvD pS137 Antibody is tested in ELISA, Immunohistochemistry, and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 14 kDa in size corresponding to phosphorylated H2AvD protein by western blotting in the appropriate Drosophila tissue or cell lysate or extract. Minimal reactivity is observed against the non-phosphorylated form of the immunizing peptide. This antibody is phospho specific for pS137 of H2AvD protein.

Product images:



Western blot using Rockland's affinity purified anti-histone H2AvD pS137 antibody shows detection of a band at ~15 kDa corresponding to phosphorylated H2AvD (lane 2 arrow-head). Lane 1: mock-irradiated *Drosophila melanogaster* (3rd instar) larvae brain WC lysate. Lane 2: 4000-RAD gamma irradiated *Drosophila melanogaster* (3rd instar) larvae brain WC lysate. Separated on by SDS-PAGE and transferred to nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:500. Washes and reaction with secondary antibody followed incubation. Use HRP conjugated Gt-a-Rabbit IgG [H&L] MX (p/n 611-103-122) and ECL for detection. Personal Communication. Yikang Rong, NIH, CCR, Bethesda, MD.