Data Sheet (Cat.No.TMAH-00082)

Anti-ARNT Antibody (1Z917)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	1Z917
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. Western Blot -Positive WB detected in: Hela whole cell lysate, MCF-7 whole cell lysate, HepG2 whole cell lysate, K562 whole cell lysate -All lanes: ARNT antibody at 1.83μg/ml -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 87, 85, 86 KDa -Observed band size: 87 KDa 2. IHC image of TMAH-00082 diluted at 1:183 and staining in paraffin-embedded human prostate cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system. 3. Immunoprecipitating HIF-1 beta in Hela whole cell lysate -Lane 1: Rabbit control IgG instead of TMAH-00082 in Hela whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) -Lane 2: TMAH-00082 (3μg) + Hela whole cell lysate (500μg) -Lane 3: Hela whole cell lysate (20μg)
Application:	ELISA,IHC,IP,WB
Recommended	WB:1:500-1:5000; IHC:1:50-1:200; IP:1:200-1:1000.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human ARNT
Antigen Species:	Human
Gene ID:	405
Uniprot ID:	P27540
Biology Area:	Cardiovascular

Research Background

Required for activity of the Ah (dioxin) receptor. This protein is required for the ligand-binding subunit to translocate from the cytosol to the nucleus after ligand binding. The complex then initiates transcription of genes involved in the activation of PAH procarcinogens. The heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters and functions as a transcriptional regulator of the adaptive response to hypoxia. The heterodimer ARNT:AHR binds to core DNA sequence 5'-TGCGTG-3' within the dioxin response element (DRE) of target gene promoters and activates their transcription.

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