

## Anti-FOXA1 Antibody (9G114)

### Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	9G114
Purification:	Affinity-chromatography

### Applications

#### 1. Western Blot

- Positive WB detected in: MCF-7 whole cell lysate, HepG2 whole cell lysate, PC-3 whole cell lysate, 293 whole cell lysate, Hela whole cell lysate
- All lanes: FOXA1 antibody at 1:2000
- Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution
- Predicted band size: 50, 46 kDa
- Observed band size: 50 kDa

2. IHC image of TMAH-00454 diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica Bond™ 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 Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Verified Activity:

3. IHC image of TMAH-00454 diluted at 1:100 and staining in paraffin-embedded human prostate tissue performed on a Leica Bond™ 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 Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

#### 4. Immunoprecipitating FOXA1 in Hela whole cell lysate

- Lane 1: Rabbit control IgG instead of TMAH-00454 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-00454(2µg)+ Hela whole cell lysate(500µg)
- Lane 3: Hela whole cell lysate (10µg)

Application: ELISA, WB, IHC, IP

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.

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### Antigen Details

Immunogen: A synthetic peptide: Human FOXA1

Antigen Species: Human

Gene ID: 3169

Uniprot ID: P55317

Biology Area: Epigenetics and Nuclear Signaling

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### Research Background

Transcription factor that is involved in embryonic development, establishment of tissue-specific gene expression and regulation of gene expression in differentiated tissues. Is thought to act as a 'pioneer' factor opening the compacted chromatin for other proteins through interactions with nucleosomal core histones and thereby replacing linker histones at target enhancer and/or promoter sites. Binds DNA with the consensus sequence 5'-[AC]A[AT]T[AG]TT[GT][AG][CT]T[CT]-3'. Proposed to play a role in translating the epigenetic signatures into cell type-specific enhancer-driven transcriptional programs. Its differential recruitment to chromatin is dependent on distribution of histone H3 methylated at 'Lys-5' (H3K4me2) in estrogen-regulated genes. Involved in the development of multiple endoderm-derived organ systems such as liver, pancreas, lung and prostate; FOXA1 and FOXA2 seem to have at least in part redundant roles. Modulates the transcriptional activity of nuclear hormone receptors. Is involved in ESR1-mediated transcription; required for ESR1 binding to the NKX2-1 promoter in breast cancer cells; binds to the RPRM promoter and is required for the estrogen-induced repression of RPRM. Involved in regulation of apoptosis by inhibiting the expression of BCL2. Involved in cell cycle regulation by activating expression of CDKN1B, alone or in conjunction with BRCA1. Originally described as a transcription activator for a number of liver genes such as AFP, albumin, tyrosine aminotransferase, PEPCK, etc. Interacts with the cis-acting regulatory regions of these genes. Involved in glucose homeostasis.

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Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481

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