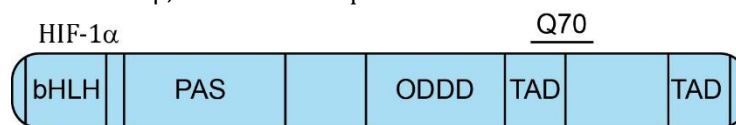


Anti-Hypoxia-Inducible Factor 1-alpha (HIF-1 α)

Catalogue no.: Q70, Q71
Clone name: AG1, AG2

Product: VHH directed against Hypoxia-Inducible Factor 1-alpha (HIF-1 α)

Target: Hypoxia-inducible factors (HIF) like HIF-1 α (UniProtKB [Q16665](#)) are basic DNA-binding proteins belonging to the PER-ARNT-SIM (bHLH-PAS) family and function as heterodimers ¹. The HLH and PAS domains are required for dimerization between the oxygen-regulated alpha domain (HIF-1 α) and the stable beta-subunit (HIF-1 β). HIF-1 α contains an oxygen-dependent degradation (ODDD) and two transactivation domains (TAD) (see figure). Low oxygen levels results in stabilization of HIF-1 α and its translocation to the nucleus where it, in complex with HIF-1 β , acts as transcription factor ².



Source: Recombinant monoclonal VHH (*Llama glama*), purified from *S.cerevisiae*. Phage-display selection using a non-immune library ³ on captured recombinant HIF-1 α fragments using total elution ⁴.

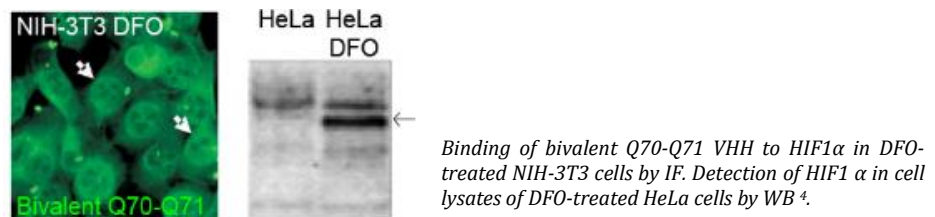
Specificity: Human HIF-1 α .
Epitope: VHHs against various overlapping epitopes are available ³.

Formulation: Frozen 0.2 μ m filtered solution of VHH in PBS.

Storage: Shipped on blue ice. Store at 4°C or -20°C (aliquots).
Addition of 0.02% sodiumazide is optional.

Applications: ELISA, IHC, IF, IP, WB ⁴.

Examples:



Products:

Cat. No.	Target	Tag	Label
Q70/Q71	HIF-1 α	Tagless	No label
Q70c/Q71c	HIF-1 α	C-direct	No label
Q70c-lab/Q71c-lab	HIF-1 α	C-direct	Biotin / NOTA / HiLyte488 / IRDye800CW

References:

- [Semenza et al.](#), (1997) *Kidney Int* 51:553-555
- [Dengler et al.](#), (2015) *Crit Rev Biochem Mol Biol* 49:1-15
- [Verheesen et al.](#), (2006) *Biochim Biophys Acta* 1764:1607-1319
- [Groot et al.](#), (2006) *Lab Invest* 86:345-356