


## Product datasheet

# HIF1 $\alpha$ + GLUT1 Hypoxia Response Human Flow Cytometry Kit ab126584

[5 Images](#)

### Overview

<b>Product name</b>	HIF1a + GLUT1 Hypoxia Response Human Flow Cytometry Kit
<b>Detection method</b>	Fluorescent
<b>Sample type</b>	Adherent cells, Suspension cells
<b>Assay type</b>	Direct
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 

### Product overview

Hypoxia and the cellular response to hypoxic environment are central topics in studies of metabolism, cancer progression and development and stem cells. A key player is the transcription factor HIF1 alpha (hypoxia inducible factor 1 alpha) which is stabilized at the protein level in response to decreased oxygen tension. HIF1 alpha then promotes transcription of a number of factors that alters cellular physiology. This Hypoxic Response Human Flow Cytometry Kit provides duplexed measurements of the transcription factor HIF1 alpha and the HIF1 alpha responsive protein GLUT1.

Secondary antibodies are not included with this kit and must be purchased separately.

Positive control: DFO, [ab120727](#) (to be bought separately).

**Platform** Flow cytometer

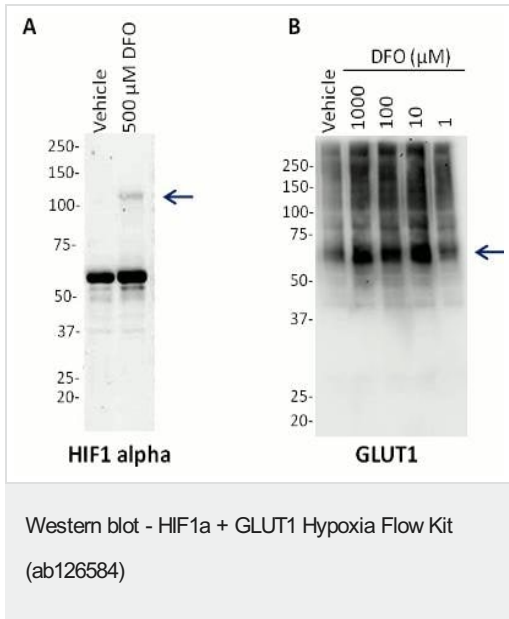
### Properties

**Storage instructions** Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
100X GLUT1 Primary Monoclonal Antibody (Rabbit)	1 x 120 $\mu$ l

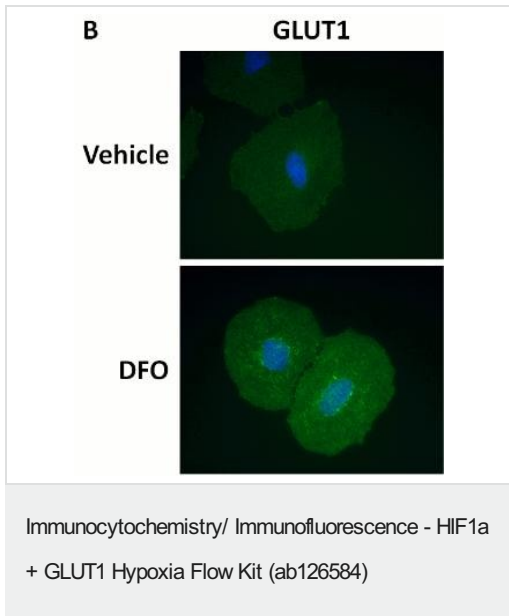
Components	1 x 96 tests
100X HIF1A Primary Monoclonal Antibody (Mouse)	1 x 120µl
10X Blocking Buffer	1 x 80ml
10X Phosphate Buffered Saline	1 x 100ml

**Images**



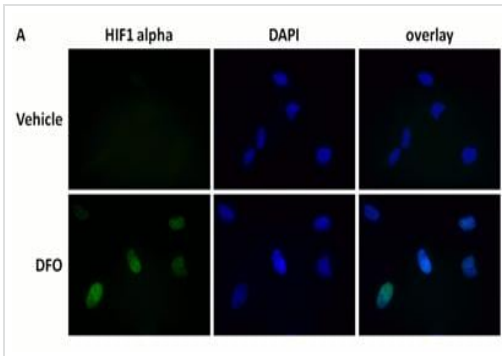
**Figure 5. Antibody specificity demonstrated by Western Blot.**

Primary antibodies used in this assay kit were validated by Western Blot using HeLa cell lysates that had been treated with a dose titration of DFO as indicated. **(A)** Using HIF1 alpha band (indicated by arrow) is absent in untreated cells and induced by DFO. In the Western Blot assay, the HIF1 alpha antibody has a prominent ~60kDa background band; however background signal is absent in ICE and immunocytochemistry application. **(B)** Similarly, GLUT1 levels are increased by DFO treatment in a dose-dependent manner. GLUT1 can be phosphorylated and glycosylated which likely contributes to the “smear” bands on the Western Blot membrane.



**Figure 4. Antibody specificity demonstrated by immunocytochemistry.**

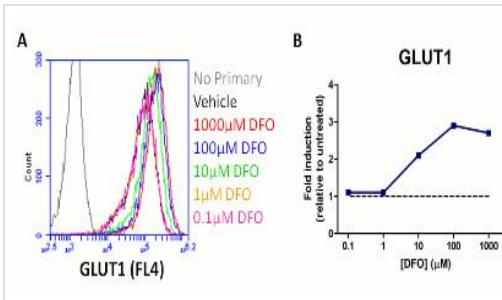
Primary antibodies used in this assay kit were validated by staining HeLa cells +/- treatment with 1mM DFO (24h) and imaged by fluorescent microscopy. GLUT1 staining labels the cell membrane and the fluorescent intensity increases with DFO treatment.



Immunocytochemistry - HIF1a + GLUT1 Hypoxia Flow Kit (ab126584)

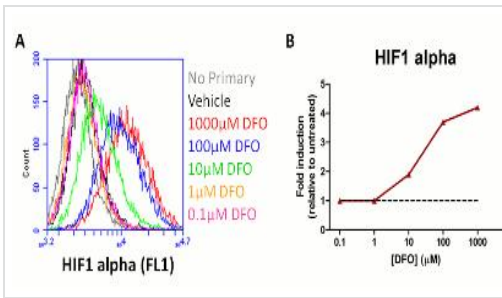
**Figure 3. Antibody specificity demonstrated by immunocytochemistry.**

Primary antibodies used in this assay kit were validated by staining HeLa cells +/- treatment with 1mM DFO (24h) and imaged by fluorescent microscopy. HIF1 alpha staining is absent in untreated cells and induced by DFO treatment. HIF1 alpha localizes to the nucleus (as seen by co-localization with the DNA stain DAPI) as expected.



Flow Cytometry - HIF1a + GLUT1 Hypoxia Response Human Flow Cytometry Kit (ab126584)

HIF1a + GLUT1 Hypoxia Response Human Flow Cytometry Kit (ab126584) used in Flow Cytometry.



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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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