



# Oxidative stress



**Hycult<sup>®</sup>Biotech**

bringing innate immunity to the **next level**

# Oxidative stress

Hycult Biotech is a leading world-class manufacturer of research reagents in the field of innate immunity. We are a specialized partner in the development and manufacturing of assays, antibodies, proteins and peptides. With the focus on innate immunity, we pay special attention to products relating to antimicrobial peptides, complement, acute phase proteins, TLR, LPS and microbial toxins.

Oxidative stress is involved in many human diseases, such as atherosclerosis, Parkinson's disease and Alzheimer's disease. In addition, it is assumed to be important in ageing. However, reactive oxygen species can also be beneficial, as they are used by the immune system to attack and kill pathogens. Detection or measurement of oxidation markers is helpful to assess oxidant activity and to monitor the effectiveness of the antioxidant system. Superoxides and other free radicals contribute, together with many other factors like inflammation, radiation, and carcinogen exposure, to DNA damage. Antibodies and assays for detection of DNA adducts, such as ethenoadenosine, BPDE-DNA, and 8-oxoguanine, are valuable markers for studies on DNA damage. Nitrotyrosine has been identified as a marker of inflammation and production of NO. Various pathways including the formation of peroxynitrite lead to nitrotyrosine production. Since nitrotyrosine is a stable end product of peroxynitrite oxidation, assessment of its plasma concentration is a useful marker of NO-dependent damage in vivo, taking into account that most proteins have a longer half life in the circulation than nitrite/nitrate (NOX). Nitrotyrosine has been detected by immunohistology in various inflammatory processes, including atherosclerotic plaques, celiac disease, rheumatoid arthritis, chronic renal failure and septic shock.

Validated ELISA kit sample types:

<b>BF:</b> Bronchoalveolar fluid	<b>CS:</b> Cell culture supernatant
<b>F:</b> Feces	<b>O:</b> Other biological fluids
<b>P:</b> Plasma	<b>S:</b> Serum
<b>SP:</b> Sputum	<b>TH:</b> Tissue Homogenate
<b>U:</b> Urine	

## Can't find the sample type you want for an ELISA kit?

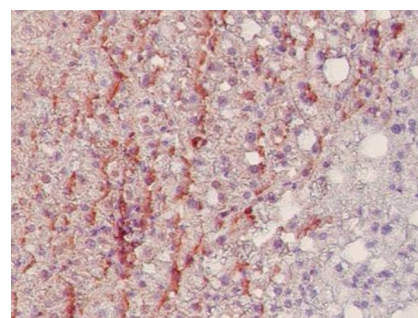
Ask the support team to assist you with your research needs on [support@hycultbiotech.com](mailto:support@hycultbiotech.com)!

ELISA kits			
Product name	Species	Sample types	Cat. #
Arginase I	Human	CS P S	HK322
MGO, Competitive	N/A	F P	HIT503
MPO	Human	CS P SP	HK324
MPO	Mouse	CS P TH	HK210
MPO	Rat	CS P TH	HK105
Nitrotyrosine	N/A	P O	HK501
Nitrotyrosine, Competitive	N/A	F P S	HIT501

Proteins		
Product name	Quantity	Cat. #
Oxidized PAPC	1 mg	HC4035
Oxidized PAPC	5 mg	HC4036
PAPC	5 mg	HC4043

## How many tests would you like?

Almost all our ELISA kits are available in both a 1-plate and a 2-plate format!



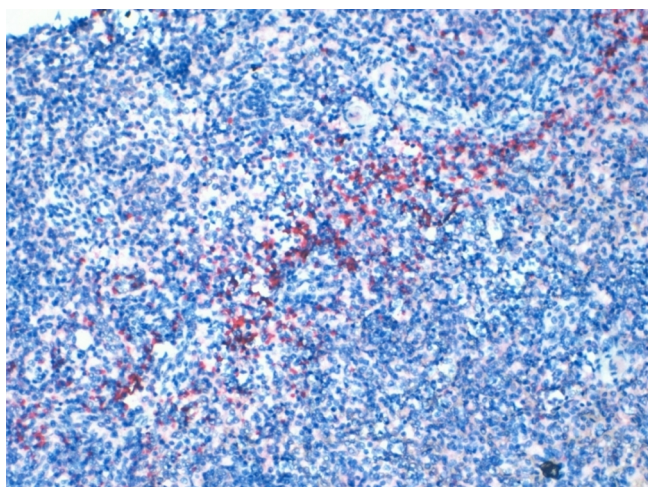
Nitrotyrosine in human liver. Staining of paraffin section with clone HM.11 (Cat. # HM5001)



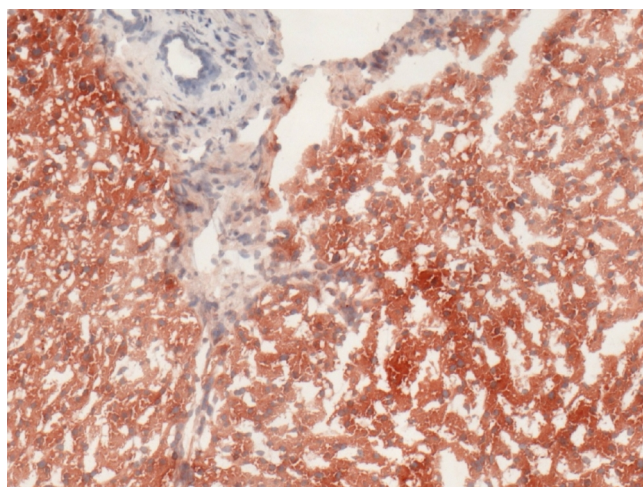
Validated antibody applications:

<b>F:</b> Frozen sections	<b>FC:</b> Flow cytometry
<b>FS:</b> Functional studies	<b>IA:</b> Immunoassay
<b>IF:</b> Immunofluorescence	<b>IP:</b> Immunoprecipitation
<b>P:</b> Paraffin sections	<b>W:</b> Western blot

Antibodies				
Product name	Clone	Species	Applications	Cat. #
Arginase I	6G3	Human	F FC IA	HM2162
Arginase I	9C5	Human	F IA IP	HM2163
Arginase I	D1.2	Human	FC IA W	HM2324
BPDE	8E11	N/A	IA	HM5008
BPDE-DNA	5D11	N/A	FC IA IF IP P	HM5007
Caveolin-1	7C8	Rat	IF IP W	HM3014
Chlorotyrosine	pAb	N/A	F IA P	HP5002
CML	CML26	Human	F IA IF P W	HM5013
Ethenoadenosine	1G4	N/A	F FC IA IP W	HM5005
Halotyrosine	BTK-94C	N/A	IA IF IP W	HM5016
LOX-1	23C11	Human	FC FS IF P	HM2138
MG-H1	1H7G5	N/A	IA IF W	HM5017
MGO-modified proteins	MGO-1	Human	IA P W	HM5014
MPO	266-6K1	Human	IA W	HM2164
MPO	B7	Human	F FC IA W	HM2288
MPO	pAb	Human	F IA P	HP9048
MPO	8F4	Mouse	F FC IA IF	HM1051
MPO	B7	Mouse	F FC IA W	HM1135
MPO	2D4	Rat	FC IA	HM3030
MPO	B7	Rat	F FC IA W	HM3039
Nitrotyrosine	HM.11	N/A	F IA P W	HM5001



LOX-1 in human spleen. Staining of paraffin section with clone 23C11 (Cat. # HM2138)



Arginase I in human liver. Staining of frozen section with clone 6G3 (Cat. # HM2162)



## What we stand for

- Original manufacturer
- > 20 years experience
- Support within one working day
- Innate immunity focus
- Reliable and robust
- Scientific drive

Hycult Biotech, bringing innate immunity to the **next level**



[www.hycultbiotech.com](http://www.hycultbiotech.com)

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