

1 **L-6/STAT3/Foxo1 Axis as a Target of Lycopene Ameliorates**

2 **Atrazine-Induced Thymic Mitophagy and Pyroptosis Cross-talk**

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**Table S1. The information of experimental grouping and treatment**

<b>The Name of Group</b>	<b>Drug treatment (Intragastrical administration)</b>	
	<b>Moring administration</b>	<b>Afternoon administration</b>
Control	water	corn oil
Vcon	water	water
Lyc	water	5 mg/kg Lyc in corn oil
ATZ1	50 mg/kg ATZ in water	corn oil
ATZ2	200 mg/kg ATZ in water	corn oil
ATZ1+L	50 mg/kg ATZ in water	5 mg/kg Lyc in corn oil
ATZ2+L	200 mg/kg ATZ in water	5 mg/kg Lyc in corn oil

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**Table S2. The information of reagents in the work**

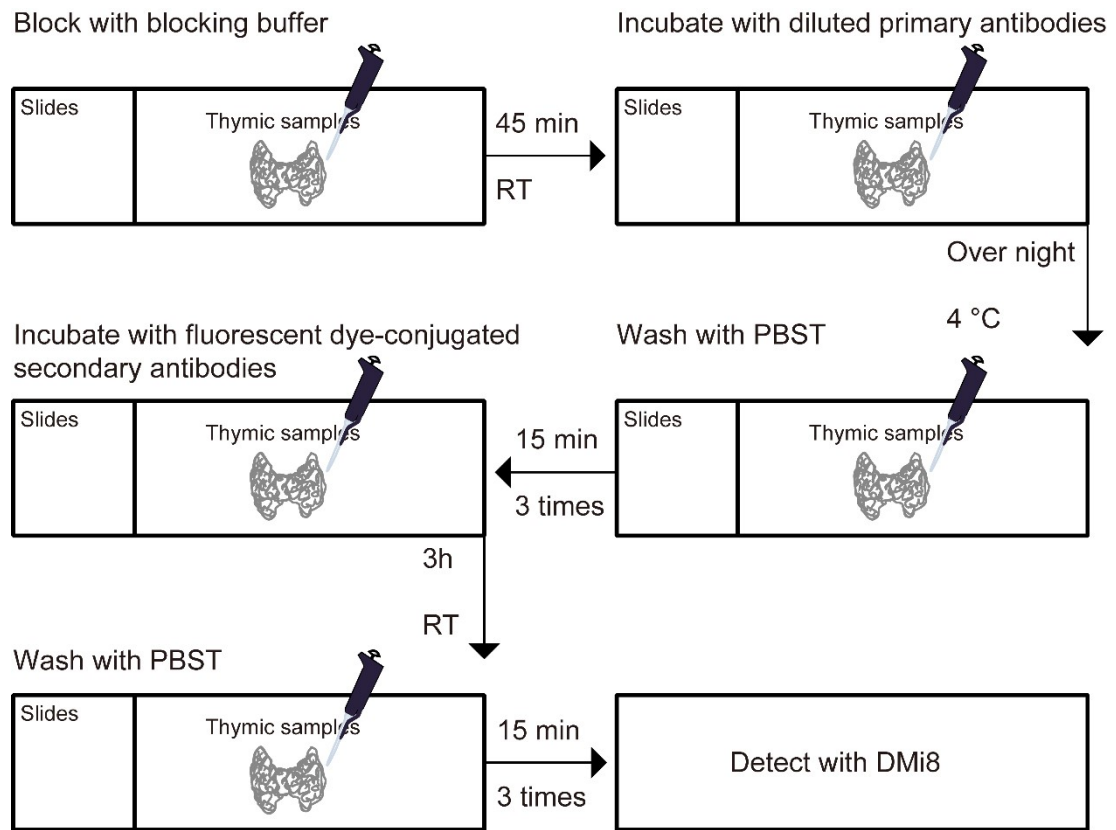
<b>Name</b>	<b>Catalogue</b>	<b>Manufacture</b>	<b>City</b>	<b>Country</b>
Atrazine	A821828	MACKLIN	Shanghai	China
Lycopene	L823832	MACKLIN	Shanghai	China
DHE	S0063	Beyotime	Shanghai	China
DAPI	C1002	Beyotime	Shanghai	China
Total protein extraction kit	MA0171	meilunbio	Dalian	China
ECL	MA0186	meilunbio	Dalian	China
QuantiCyto <sup>®</sup> Mouse TNF- $\alpha$ ELISA kit	EMC102a.48	neobioscience	Shenzhen	China
QuantiCyto <sup>®</sup> Mouse IL-6 ELISA kit	EMC004.48	neobioscience	Shenzhen	China
QuantiCyto <sup>®</sup> Mouse IL-10 ELISA kit	EMC005.48	neobioscience	Shenzhen	China

**Table S3. The information of antibodies using in western blot**

<b>Name</b>	<b>Source</b>	<b>Dilution</b>	<b>Catalogue</b>	<b>Manufactur e</b>	<b>City</b>	<b>Country</b>
AIM2	Rabbit	1: 1000	A3356	ABclonal	Wuhan	China
AKT1	Rabbit	1: 1000	bs-0115R	Bioss	Beijing	China
Asc	Rabbit	1: 1000	A1170	ABclonal	Wuhan	China
$\beta$ -actin	Rabbit	1: 2000	AC026	ABclonal	Wuhan	China
CD45	Mouse	1: 1000	60287-1-Ig	proteintech	Wuhan	China
caspase-1	Rabbit	1: 1000	bs-0169R	Bioss	Beijing	China
caspase-1 p20	Rabbit	1: 1000	bs-6368R	Bioss	Beijing	China
Foxo1	Rabbit	1: 2000	18592-1-AP	proteintech	Wuhan	China
GAPDH	Rabbit	1: 2000	AF7021	Affinity Biosciences	Jiangsu	China
GSDMD N terminal	Rabbit	1: 800	A20197	ABclonal	Wuhan	China
JNK	Rabbit	1: 2000	9252T	Cell Signaling Technology	Danvers	USA
LC3B	Rabbit	1: 1000	A19665	ABclonal	Wuhan	China
Nfkb	Rabbit	1: 1000	WL01980	Wanleibio	Shenyang	China
Nlrp3	Rabbit	1: 1500	Bs-10021R	Bioss	Beijing	China
p62	Rabbit	1: 1000	bs-2951R	Bioss	Beijing	China
PI3K	Rabbit	1: 1000	bs-4159R	Bioss	Beijing	China
Pink1	Rabbit	1: 1500	A11435	Abconal	Shanghai	China
p-STAT3	Rabbit	1: 1000	WLP2412	Wanleibio	Shenyang	China
SOD2	Rabbit	1: 1000	A1340	ABclonal	Wuhan	China
STAT3	Rabbit	1: 1000	WL01836	Wanleibio	Shenyang	China
HRP conjugated secondary antibody (Rabbit)	Goat	1: 3000	ZB-2301	ZSGB-BIO	Beijing	China
HRP conjugated secondary antibody (Mouse)	Goat	1: 3000	ZB-2305	ZSGB-BIO	Beijing	China

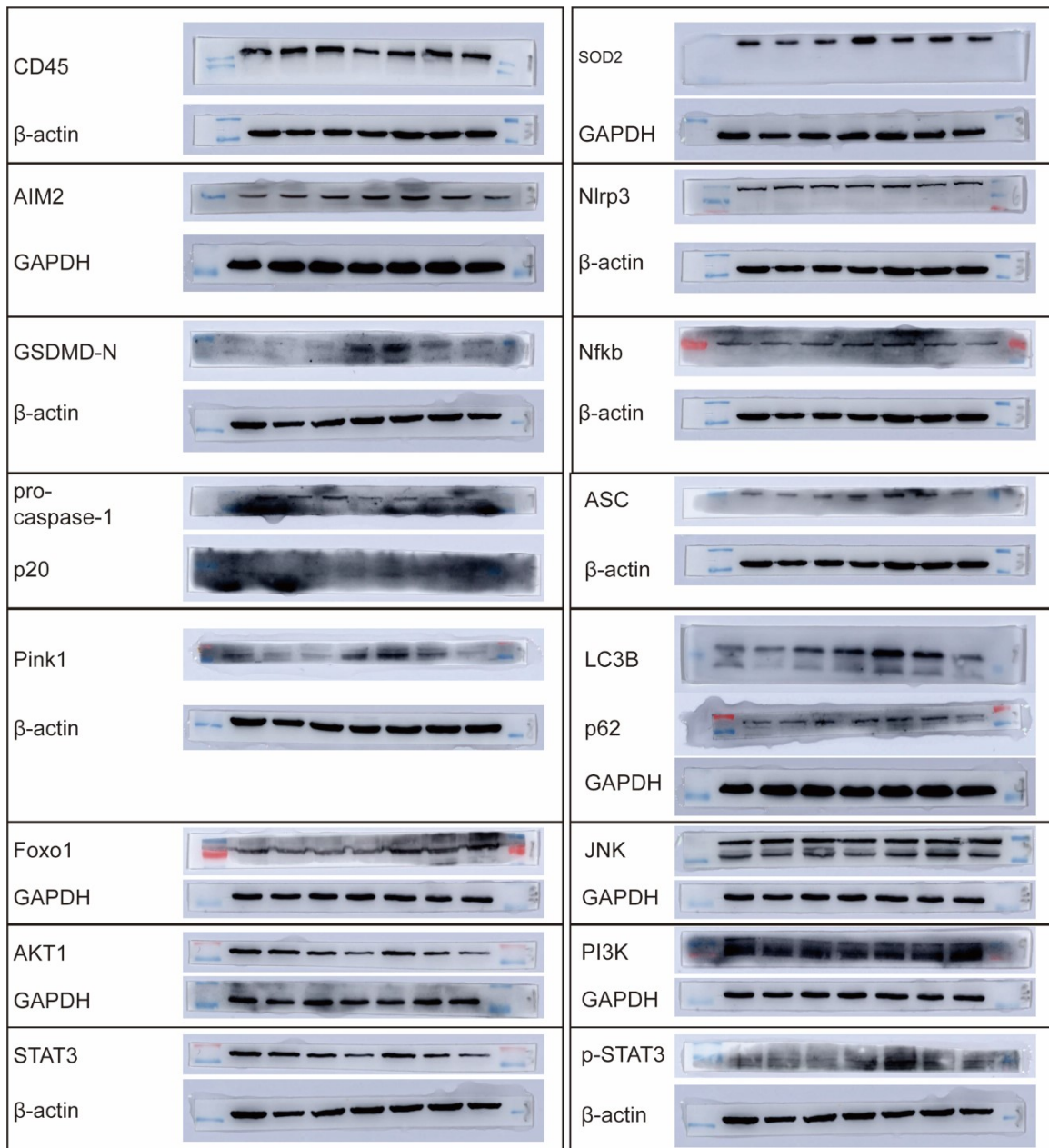
**Table S4. The information of antibodies using in immunofluorescence staining**

<b>Name</b>	<b>Source</b>	<b>Dilution</b>	<b>Catalogue</b>	<b>Manufacture</b>	<b>City</b>	<b>Country</b>
Tom20	Rabbit	1: 200	A18047	ABclonal	Wuhan	China
Foxo1	Rabbit	1: 300	18592-1-AP	proteintech	Wuhan	China
Parkin	Mouse	1: 300	ab77924	Abcam	Boston	USA
3-Nitrotyrosine	Mouse	1: 300	ab61392	Abcam	Boston	USA
Coralite594 conjugated secondary antibody	Goat	1:200	SA00013-4	proteintech	Wuhan	China
Alexa Fluor 488 conjugated secondary antibody	Goat	1: 500	ab150113	Abcam	Boston	USA



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 20 **Fig. S1 The schematization of immunofluorescence**

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24 **Fig. S2 Original western blot gels used in the study**