INFLAMMATORY MEDIATOR REGULATION OF TRP CHANNELS

Proteases
PGE2
Ca^{2+}, Na^{+}
TRPM8
EP
Gs
AC
cAMP
PKA
PLA2
PUFAs
Lysophospholipids
Arachidonic acid metabolism
TRPV4
Lipids
PLA2
AA
P450
EET
PAR2
Gq
PLCβ
IP3
DAG
PKC
Primary sensory neuron
BK
B1/B2
5HT
5HTR
HIS
H1
ATP
P2YR
Gq
PLCβ
AA
12-LOX
HPETE
Mast cell
Calcium signaling pathway
IP3R
Ca^{2+}
PKCε
PP1
-p
+p
Tissue injury
Ca^{2+}, Na^{+}
TRPA1
Ca^{2+}, Na^{+}
TRPV1
Ca^{2+}
Increased transduction/ excitability
Peripheral sensitization
CAMKII
CaM
H^{+}
ASIC
Na^{+}, Ca^{2+}
MAPK signaling pathway
IL-1β
IL1R
MKK3/6
p38/JNK
Macrophage
NGF
TrkA
PLCγ
DAG
PKCε
IP3
PI3K
PKCδ
Src
TRPV1
+p

TRP channels involved in thermal transduction

Temperature sensitivity	Nonthermal agonists	Channel
>42°C	Capsaicin, Lipoxygenase products, Resiniferatoxin, NADA, Anandamide, Ethanol, Acidic pH	TRPV1
>52°C	GF	TRPV2
>33°C	Camphor, 2-APB	TRPV3
~27°C-42°C	Hypotonic, 4-α phorbol	TRPV4
<25°C	Menthol, Icilin, Eucalyptol	TRPM8
<17°C	Cinnamaldehyde, Mustard oil, Allicin, Icilin	TRPA1

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