

Supplementary Table 1

Primers for pUC19 control experiment

Primer names	Sequences
pUC19-50	5'-TACGCCAGCTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTA-3'
pUC19-40	5'-GGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTA-3'
pUC19-30	5'-GGATGTGCTGCAAGGCGATTAAGTTGGGTA-3'
pUC19-20	5'-CAAGGCGATTAAGTTGGGTA-3'
pUC19-10	5'-AAGTTGGGTA-3'

Primer names	Sequences
pUC19NC-50	5'-ATGTGCGTCGGAACCAGCCTACGAGTTGTCTGGCGTCTGCGACCCTGTGC-3'
pUC19NC-40	5'-GAACCAGCCTACGAGTTGTCTGGCGTCTGCGACCCTGTGC-3'
pUC19NC-30	5'-ACGAGTTGTCTGGCGTCTGCGACCCTGTGC-3'
pUC19NC-20	5'-TGGCGTCTGCGACCCTGTGC-3'
pUC19NC-10	5'- GACCCTGTGC-3'

Supplementary Table 2

Tissues (Mouse strain: C57BL/6J if it is not stated)

Aorta and vein
Vagina
Pituitary gland (total RNA)
Tg197 WHJ/whole joints
Tg197 SFs Synovial fibroblasts
Adipose
Diencephalon
Hippocampus
Cerebellum
Placenta
Tongue
Embryo13-head

Stomach
Spleen Th2 CD4+Tcell
Mix 15 days embryo whole body
18-day embryo
Testis (embryo15)
Embryo12-head
Melanocyte
(B6)N2 Thymic cells
N0 kidney
Skin (Neonate 0 day)
Embryo17-Head
N0 eyeball
Embryo16 Head
E13 lung
L10 mammary gland
Male adult lung
Female 10 days pregnant, adult ovary and uterus
Mix mammary gland
E13 heart
Male adult gall bladder
N10 Olfactory brain
Mix 10 days neonate heart
Mix 13 days embryo brain
ES cells
Embryo10
Adult inner ear
Ovary (embryo 12)
Stroma cell
Mix 12 days embryo whole body
B6-derived CD11 +ve dendritic cells
N0 Cerebellum
Colon
Small intestine

Eyeball (adult)
Bone
Urinary bladder
Spinal cord
Mix 13 days embryo whole body
Male adult spleen
Medulla oblongata
Cecum
Male 16 days neonate diencephalon
Lung (embryo16)
Male adult brain
Liver
Ovary & Uterus (Preg.11day)
Pancreas
Male adult kidney
Mix 17 days embryo kidney
C.quadrigemina
Female 11 days pregnant adult placenta
Testis (embryo 13)
N16 heart
E12 eyeball

Supplementary Table 3

Primer list : Thioredoxin domain containing 5

Primer names	Sequences
Txndc5-1	5'-CAAGCACCTGTATACGGCCGACATGTTCAC-3'
Txndc5-2	5'-GCAAAGGCGCCCGGGCCCAGGAGGTGGAAG-3'
Txndc5-3	5'-CAAGCACCTGTATACGGCCGACATGTTCAC-3'
Txndc5-4	5'-GAGCTTGTGTTGCTTCCTGTGTGCTCTCTG-3'
Txndc5-5	5'-CTGTTGACTTAGTAAGGTGTCGGTCCATAG-3'
Txndc5-6	5'-GTGGAGTGTGGAGATGTACGTC'TTCTGCAG-3'
Txndc5-7	5'-CTGACCATCTCTCTAATGATTGAGCAGTGG-3'
Txndc5-8	5'-GCTCACAGTGGCTTCAGCTTAGCATCATGG-3'
Txndc5-9	5'-GACAAGTACAACAGCATGGAGGATGCCAAG-3'
Txndc5-10	5'-CAGTGAAGTACCAGGGTCCTAGAGACTTTG-3'
Txndc5-11	5'-GGTTGTATGAGCTCTCGGCCAACAACTTTG-3'
Txndc5-12	5'-CAACCACTTTATCAAGTTCTTCGCTCCGTG-3'
Txndc5-13	5'-CTCAGAGCATCAGGTCAGAGGCTATCCAAC-3'
Txndc5-14	5'-GACTTGGAGTCACTGAGAGACTATGTGCAG-3'
Txndc5-15	5'-GATAACCTTCGTCAAGTTCTATGCTCCGTG-3'
Txndc5-16	5'-GTGTGGCCACTGTAAGAATCTGGCTCCTAC-3'

Supplementary Table 4

Primer list : Interleukin 1 β

Primer names	Sequences
II1b-1	5'-GATCCTCTCCAGCCAAGCTTCCTTGTGCAA-3'
II1b-2	5'-AAAGAATCTATACCTGTCCTGTGTAATGAA-3'
II1b-3	5'-CTCCATGAGCTTTGTACAAGGAGAACCAAG-3'
II1b-4	5'-AAACAACAGTGGTCAGGACATAATTGACTT-3'
II1b-5	5'-AGTGTGGATCCCAAGCAATACCCAAAGAAG-3'
II1b-6	5'-CAAACCCTGCAGTGGTTCGAGGCCTAATAG-3'
II1b-7	5'-TGGATGCCACCCACTTTCTTTCTTCACAC-3'
II1b-8	5'-ATGAGCACCTTCTTTTCCTTCATCTTTGAA-3'
II1b-9	5'-CATCAACAAGAGCTTCAGGCAGGCAGTATC-3'
II1b-10	5'-CTTAATGAGGACTGAGAGCAGACAGCAGAC-3'
II1b-11	5'-CACCTCAATGGACAGAATATCAACCAACAA-3'
II1b-12	5'-GATGATGATGATAACCTGCTGGTGTGTGAC-3'
II1b-13	5'-TGAATGAAGCACCAGCACATTGCTTTGATG-3'
II1b-14	5'-GGTCACAAGAAACCATGGCACATTCTGTTC-3'

Supplementary Table 5

Primer list: Interleukin 1 family 6

Primer names	Sequences
Il1f6-1	5'-GGTGTAGTTCTGTAGTGTGCAGACACATTC-3'
Il1f6-2	5'-GTTGTGGATAAAAAGGCTTGGACCTTAGTAG-3'
Il1f6-3	5'-TGGCAGCTCAGAAACAACATCACCATAATG-3'
Il1f6-4	5'-CATCACCTTCGCTTAGACATGTTTCAGGATC-3'
Il1f6-5	5'-CCAATATCTGGACACTCTTGAGACGAACAG-3'
Il1f6-6	5'-CGATGAGCTGCCTGTTCTGCACAAAGGATG-3'
Il1f6-7	5'-GAGTGGTACAACCTCTACATTTGAGTCTGC-3'
Il1f6-8	5'-TCTTCATCACTGACTTCGAGATGATTGTGG-3'
Il1f6-9	5'-GGTTTTTAGACACATTGCTCTGTGGCACTC-3'
Il1f6-10	5'-TCCAAAGCATTACTGTTGGTTTTTACAAG-3'
Il1f6-11	5'-GGTGGTGAATCAGATGCAGAACATCTTAC-3'
Il1f6-12	5'-GAATCTCTTGCTGCTTGGCTCTGACCTTGG-3'
Il1f6-13	5'-TGCATGGATAATTTAGAAGAGAGGGCAGTC-3'
Il1f6-14	5'-TCTTGATTTATTTCAATGAGCAGTCATAGG-3'

Supplementary Table 6

Primer list: glutamine-rich hypothetical protein

Primer names	Sequences
gr1	5'-CGCCTGCGCGTCCCCCGCTGAGTGGGGTTG-3'
gr2	5'-CGGCTGGAGCTGAGAGTCCCCTGCTCCTTC-3'
gr3	5'-GACTAGCTTCGTACACGCAACCTTGCATC-3'
gr4	5'-GGATAACCAGCATCCGAGATCATCAAGTCAG-3'
gr5	5'-CGTCCACGCTGTGCATTGTAATGTCTTCAC-3'
gr6	5'-ATTCTCTGTCTTGGGTGAACTTGAGATGGG-3'
gr7	5'-GGACAGACTGTGTGGTGGTAAGATGATTGG-3'
gr8	5'-CCTTTGCCTCTTGCCTCTATAGAACAATTC-3'
gr9	5'-CGGTTGCCATGGCAACAGACACAATGGTTC-3'
gr10	5'-AAGGGATGGGGAGAGGAGGAGAATGTCAAC-3'
gr11	5'-CAAGAAGGCTTGTTTCAGACTAGCTCTGAGC-3'
gr12	5'-CCATATGGTGTGCAAGTGTGTGTTGGTGAG-3'
gr13	5'-GATGTGGAGTGCATAGCACAGAAGCTGGAG-3'
gr14	5'-GAGGAGAGAGAACAGAGAACGTTAGGTGAG-3'
gr15	5'-TCGAGGTTAGCTGTCATAATTCCCAGTTAC-3'
gr16	5'-GAGAATGCCCGACTGGAAATAGAAAAACTG-3'
gr17	5'-GTACCACCTCTACAGCCACTGCCACACTTG-3'
gr18	5'-GTACAACTGACCTACAGAGAGCAAGGGAGC-3'
gr19	5'-GTCTAAGTTGGTCCTTGAGAACTGATTCTG-3'
gr20	5'-ACAACCTGACCACAAAGTGTTTGCTTGGAAG-3'
gr21	5'-CCTTTTCAGTGTGTCGGCTCTCCTTGCTTG-3'
gr22	5'-CCTCTTCAATCCATCGCTGCTGACTGACAG-3'
gr23	5'-AAGAGACAATTAAAGTACAATATTTTAATG-3'
gr24	5'-GTGTTGGAGAGTGACTTGTGAGAAGAGAGG-3'
gr25	5'-CAAGGGCTGAGGGCAGAGAGCAATTTTLAG-3'
gr26	5'-GAAGATCTGACTGAGCACAGTAACTAGAGG-3'
gr27	5'-GCTCTTCTCTGTGGAATCTCTCTCCATGTC-3'

gr28	5'-CATTCAACATTAGCCATTTGTCCACTGGGC-3'
gr29	5'-CCTCAAGCCTGTCTCCATCCTTATCCATAC-3'
gr30	5'-AAGTTTCTTATAACAACGTTACAACCTTGAGC-3'
gr31	5'-AATTCATTGCATGGGAAACCCAAGGCTTAG-3'
gr32	5'-CTGTGTGTGTGTGTGTGTGTGCTGTTCTTCAC-3'
gr33	5'-CTCTCTCAAGCGCCTTTCTCTCTTACAATG-3'
gr34	5'-CAACATAACAGTTTGCTCCAGGAGGAGAAC-3'
gr35	5'-ATTGAACTCAAGCAGGCCAGGAGAAGTTG-3'
gr36	5'-CGGAAGACAAGTCTGCCTCTCAGATGTTTG-3'
gr37	5'-TTTTTCTTATATGAGTTTCCATCATCTCC-3'
gr38	5'-CCTCTGCTGTCCTTTTAATATCTGTGGGAC-3'
gr39	5'-CAGACACAAGTGAGAGCCTTGCAGGATAAG-3'
gr40	5'-CCACTCCTGCTATTCAGCCAATTATCACTG-3'
gr41	5'-GGATTCAATTCCAGGCACCTACAATGTAGC-3'
gr42	5'-GGTCAGTGACACTACATTATTCTTGAGGCG-3'
gr43	5'-CGGTTTTTGGAGCAACTTGGTGATCATGTG-3'
gr44	5'-GTCAAGGACCGTCTAACTCACGAGCTAGAG-3'
gr45	5'-GGAAGCTTCTGGAACAAGTCACAGATCAAG-3'
gr46	5'-ATAAGGAGCATCCAGATTCGCAGAGAAGAG-3'
gr47	5'-GGCATGGCTTGTGCCATCAGTATCTTAATG-3'
gr48	5'-CAAGGTGATCAAGCTGAGAGGTTACACATC-3'
gr49	5'-GATTAGTGGTAGGATGCTCGTCTGGAATAC-3'
gr50	5'-CTCAAAAAGATACTACCTTTACAAAACCTCC-3'

Supplementary Table 7

Clone list : Thioredoxin domain containing 5

Clone ID	Tissues
2610106K24	Embryo10
E970033M01	Mix 12 days embryo whole body
G270135G09	Melanocyte
I1C0028N02	Mix blastocyst blastocyst
G430009D22	Mix B cells
G430060J19	Mix
G430064A07	Mix
G430130E14	Mix bladder
G430009D22	Mix B cells
G430144K16	Mix bone marrow stroma cell
G430148H04	Mixed
L930035P06	Mix 17.5 days embryo whole body
G930005P07	Mix mammary gland
G930026P10	Mix mammary gland
I920161N07	Female 17 days pregnant adult amnion
I920178L20	Female 17 days pregnant adult amnion
I920192M05	Female 17 days pregnant adult amnion
K630014G11	Mix 13 days embryo whole body
I920074E01	Mixed
I920125D10	Mix 17 days embryo kidney
L230044D13	F1 WHJ/whole joints
I320001F14	Stroma cell
I320012I09	Stroma cell
I320026H17	Stroma cell
I420010N07	Osteoclast-like cell
L530009D17	Male adult lung
L530016D01	Male adult lung
K430025C13	Mix p28 Visual cortex
K530005D13	Mix p55 Visual cortex

K530016B14	Mix p55 Visual cortex
K530018C12	Mix p55 Visual cortex
K530023N08	Mix p55 Visual cortex
K530030G18	Mix p55 Visual cortex
K530327B20	Mix p55 Visual cortex
L830007J18	Tg197 WHJ/whole joints
1520402N17	Cerebellum
5031436P19	Ovary & Uterus(Preg.11day)
3732421E15	Embryo12 Lower body
4122402I07	Embryo16 Head
4632401M23	Skin (Neonate0day)
5730450B01	Embryo 8
5730514K09	Embryo 8
5730514K19	Embryo 8
573058800	Embryo 8
6820443J08	Extra ovary (embryo 12)
9530062G08	Urine bladder
8430414G05	Lung (embryo16)
9930018J01	Vagina
8430427C15	Lung (embryo16)
7420472E18	Invitro fertilized eggs (adult)
7420484N01	Invitro fertilized eggs (adult)
7420490G01	Invitro fertilized eggs (adult)
C130022H24	E16 Head
C130023C17	E16 Head
C330041B16	ES cells
C530021L21	E12 spinal cord
D130084B14	E12 spinal ganglion
D830011G03	N16 heart
C630049F15	Hippocampus
D230036C09	E12 eyeball
D930026A22	E15 head

1110016J06	18-day embryo
1110031D14	18-day embryo
1110036J02	18-day embryo
1190004B04	18-day embryo
1190021F01	18-day embryo
1190024O20	18-day embryo
1190029P05	18-day embryo
1190033B07	18-day embryo
1190033F14	18-day embryo
1190035I19	18-day embryo
1200017C21	Lung
1.20002E+28	Lung
1300007G04	Liver
1500031D03	Cerebellum
G370067H14	B16 F10Y cells cytoRNA
F430006O09	mix 6 days neonate spleen
3526404H09	Brain
3830422A09	Placenta+extra embryonic tissue
5730447M10	Embryo 8
4930580F23	Testis
6030453D20	Testis (embryo 13)
C130031G18	E16 Head
C130032N24	E16 Head
C130075D04	E16 Head
C730036L15	SV40Tantigen transgenic mouse he
2210416I23	Stomach
2810421B12	Embryo10+Embryo11
G270063E18	melanocyte
B230369N19	C.quadrigemina
B230377N14	C.quadrigemina
G530001C22	LPS-treated bone marrow macrophage
G530012G02	LPS-treated bone marrow macrophage

G530019P04	LPS-treated bone marrow macrophage
G930031O14	mix mammary gland

Supplementary Table 8

Clone list : Interleukin 1 β

Clone ID	Tissues
I730030O16	Mix
I830007B19	LPS-treated bone marrow macrophage
I830008E04	LPS-treated bone marrow macrophage
I830083A07	LPS-treated bone marrow macrophage
9930018N22	Vagina
A530081A22	Aorta and vein
A530093O03	Aorta and vein
D730034P15	L10 mammary gland
G630059M03	Male adult accessory axillary lymph node
9930105H20	Vagina
A830023M03	N10 Cortex
A830095G07	N10 Cortex
F830203M10	Activated spleen from NOD.Cz Idd3
F830228K19	Activated spleen from NOD.Cz Idd3

Supplementary Table 9

Clone list : Interleukin 1 family 6

Clone ID	Tissues
2310031E05	Tongue
2310031C03	Tongue
2310057B02	Tongue
2310044C14	Tongue
2310035D21	Tongue
2310021N03	Tongue
2310016P06	Tongue
2210402B18	Stomach
2210038G14	Stomach
2210010P21	Stomach

2310005M13	Tongue
2310068N20	Tongue
2310065E02	Tongue
2310005L09	Tongue
9130022H20	Cecum
2310079C01	Tongue
2300006P11	Tongue

Supplementary Table 10

Clone list : glutamine-rich hypothetical protein

Clone ID	Tissues
F430103N05	Mix 6 days neonate spleen
4930451K03	Testis
K330313E13	Mix p24 Visual cortex
9530074K22	Urine bladder
4930517C18	Testis
A730052P22	N7 Cerebellum
7330424G03	Adrenal gland (adult)
9430060J09	E12 Upper body
4933436H09	Testis
K430360E06	Mix p28 Visual cortex
9430097N23	E12 Upper body
4930550A07	Testis
4930521G01	Testis

Figure legends

Figure S1: Exon structures of known transcript and of sequenced alternative splice variant candidates in Thioredoxin domain containing 5 locus. Known transcript (105245) is represented at top. Boxes and lines represent exons and introns, respectively. Filled boxes indicate the region of protein-coding sequence. Squares with dot lines indicate genuine alternative splice variants. Positions of domains predicted by InterPro and SOSUI are indicated with double-headed arrows.

Figure S2: Exon profiling of IL-1F6 (a) Exon structure of a known clone (54448) in IL-1F6 locus. Boxes and lines represent exons and introns, respectively. Filled boxes indicate the region of protein-coding sequence. Solid line on the exon 4 indicates the position of probe 5. (b) Typical result of RecA-mediated exon profiling method. The probe x was designed on the exon 4. Circles (O) and crosses (X) indicate presence and absence of the triple-stranded DNA (triplex) formation, respectively. Clone 1 and Clone 10 indicated lack of the sequence corresponding to the probe designed on exon4.

Figure S3: Exon profiling of glutamine rich hypothetical protein (a) Exon structures of 8 known clones in glutamine rich hypothetical protein locus. Boxes and lines represent exons and introns, respectively. Filled boxes indicate the region of protein-coding sequence. Solid line on the exon 17 indicates the position of probe. (b) Typical result of RecA-mediated exon profiling method. The probe x was designed on the exon 17. Circles (O) and crosses (X) indicate presence and absence of the triple-stranded DNA (triplex) formation, respectively. Only clone 1, 3, 6, 10 were suggested to contain the sequence corresponding to the probe 5. (c) Exon structures of alternative splice candidate transcripts. Open boxes indicate novel splice variants.