

What is claimed is:

1. A genetically modified rodent whose genome comprises a replacement of a genomic fragment of an endogenous rodent *Baff* gene with a human genomic fragment comprising exons 3-6 of a human *BAFF* gene to form a humanized *Baff* gene, wherein the replacement is at an endogenous rodent *Baff* locus, wherein the humanized *Baff* gene is under control of the rodent *Baff* promoter at said endogenous rodent *Baff* locus and encodes a humanized Baff protein comprising an extracellular portion of the human BAFF protein encoded by said human *BAFF* gene linked to an intracellular portion of the rodent Baff protein encoded by said rodent *Baff* gene, and wherein said genetically modified rodent expresses said humanized Baff protein.
2. The genetically modified rodent of claim 1, wherein said rodent does not detectably express a full-length endogenous rodent Baff protein.
3. The genetically modified rodent of claim 1 or claim 2, wherein said rodent is a mouse or rat.
4. The genetically modified rodent of claim 3, wherein said rodent is a mouse.
5. The genetically modified rodent of claim 4, wherein the genomic fragment of an endogenous mouse *Baff* gene being replaced comprises exons 3, 4, 5, 6 and a portion of exon 7 of said endogenous mouse *Baff* gene.
6. The genetically modified rodent of claim 5, wherein the humanized Baff protein comprises amino acids 142 to 285 of SEQ ID NO: 5.
7. The genetically modified rodent of claim 1 or 6, wherein the humanized *Baff* gene comprises exon 1 and exon 2 of said endogenous *Baff* gene.
8. The genetically modified rodent of claim 7, wherein said humanized Baff protein comprises the amino acid sequence as set forth in SEQ ID NO: 7.

9. The genetically modified rodent of claim 1 or 5 wherein the coding exons of the humanized *Baff* gene consist of exons 1 and 2 of said endogenous *Baff* gene and exons 3-6 of said human *Baff* gene.
10. An isolated cell or tissue of a genetically modified rodent according to any of claims 1-9.
11. A mouse embryonic stem (ES) cell, whose genome comprises a replacement of exons 3-6 and a portion of exon 7 of an endogenous mouse *Baff* gene with a human genomic fragment comprising exons 3-6 of a human *BAFF* gene to form a humanized *Baff* gene, wherein the replacement is at an endogenous mouse *Baff* locus, wherein the humanized *Baff* gene is under control of the mouse *Baff* promoter at said endogenous mouse *Baff* locus, and encodes a humanized Baff protein comprising an extracellular portion of the human BAFF protein encoded by said human *BAFF* gene linked to an intracellular portion of the mouse Baff protein encoded by said mouse *Baff* gene.
12. A mouse embryo generated from the ES cell of claim 11.
13. A method of making a rodent that expresses a humanized Baff protein from an endogenous *Baff* locus, the method comprising the steps of:
- (a) replacing a genomic fragment of an endogenous rodent *Baff* gene at an endogenous *Baff* locus in a rodent embryonic stem (ES) cell with a genomic fragment comprising exons 3-6 of a human *BAFF* gene to form a humanized *Baff* gene at the endogenous rodent *Baff* locus, wherein the humanized *Baff* gene is under control of the rodent *Baff* promoter at said endogenous rodent *Baff* locus and encodes a humanized Baff protein comprising an extracellular portion of the human BAFF protein encoded by said human *BAFF* gene linked to an intracellular portion of the rodent Baff protein encoded by said rodent *Baff* gene;
 - (b) obtaining a modified rodent ES cell comprising said humanized *Baff* gene at the endogenous rodent *Baff* locus; and,
 - (c) creating a rodent using the modified ES cell of (b).
14. The method of claim 13, wherein the rodent is a mouse or rat.

15. The method of claim 13 or 14, wherein said rodent does not detectably express a full-length endogenous rodent Baff protein.

16. A method of engrafting human cells into a mouse, wherein said mouse is capable of receiving transplanted human cells, the method comprising steps of:

(a) providing a mouse whose genome comprises a replacement of exons 3-6 and a portion of exon 7 of an endogenous mouse *Baff* gene with a human genomic fragment comprising exons 3-6 of a human *BAFF* gene to form a humanized *Baff* gene, wherein the replacement is at an endogenous mouse *Baff* locus, wherein the humanized *Baff* gene is under control of the mouse *Baff* promoter at said endogenous mouse *Baff* locus and encodes a humanized Baff protein comprising an extracellular portion of the human BAFF protein encoded by said human *BAFF* gene linked to an intracellular portion of the mouse Baff protein encoded by said mouse *Baff* gene; and

(b) transplanting one or more human cells into the mouse.

17. The method of claim 16, wherein the human cells are human hematopoietic stem cells.