Supplementary method

Radiolabeling and Scatchard Analysis

IFN-γ (RDI) was radiolabeled with iodine-125 using the chloramine T method. The apparent equilibrium dissociation constant, *K*d, and the number of binding sites per cell were measured by Scatchard analysis. Cells were incubated for 1 h at 4°C with increasing concentrations of ^{125}I-IFN- γ, ranging from 0.14 to 2.25 nM. Parallel ^{125}I-IFN-γ binding assays were carried out in the presence of a 300-fold excess of unlabeled IFN-γ to determine nonspecific binding. Cells were washed three times, and pellets were counted using a gamma counter to quantify the amounts of bound ligand. The amount of free ligand was calculated by susbtracting the bound ligand to the total amount of ligand add in each tube.

Supplementary figure 1:

Cytokine levels in the whole-blood supernatant from a healthy control (WT/WT), the patient studied (P), either not stimulated (NS) or stimulated for 48 hours with live BCG alone or supplemented with IL-12 or IFN-γ. The levels of IFN-γ and IL-12 p40 in the supernatant were determined by ELISA. P shows no response to IFN-γ in term of IL-12p40 production, but a normal response to IL-12 in terms of IFN-γ production.

Supplementary figure 2:

FACS analysis of IFN-γR1 expression on SV40 transformed fibroblasts from WT/WT, I87T/I87T, 818del4/WT, P and 131delC/131delC subjects. Gray area: isotypic control antibody; bold dark line: specific extracellular IFN-γR1 antibody (GIR-94).

Supplementary figure 3:

Immunoprecipitation of IFN-γR1 from SV40-transformed WT/WT, I87T/I87T, 818del4/WT, the patient P, and 131delC/131delC fibroblasts, using an antibody recognizing intracellular part of IFN-γR1 (C20). The same antibody was used for detection. Left panel: without PNGase F treatment; right panel: with PNGase F treatment after precipitation.

Supplementary figure 4:

WT/WT, I87T/I87T, 818del4/WT, the patient P, and 131delC/131delC fibroblasts (2 million) were not stimulated or were stimulated with 10^3 or 10^5 IU/ml IFN-γ or 10^5IU/ml IFN-α for 20 minutes. Nuclear proteins were then subjected to electromobility shift assays with a GAS probe. Similar levels of GAS binding were observed after IFN-α treatment (lower panel); however, P cells showed no GAF binding after IFN-γ stimulation (Upper panel).

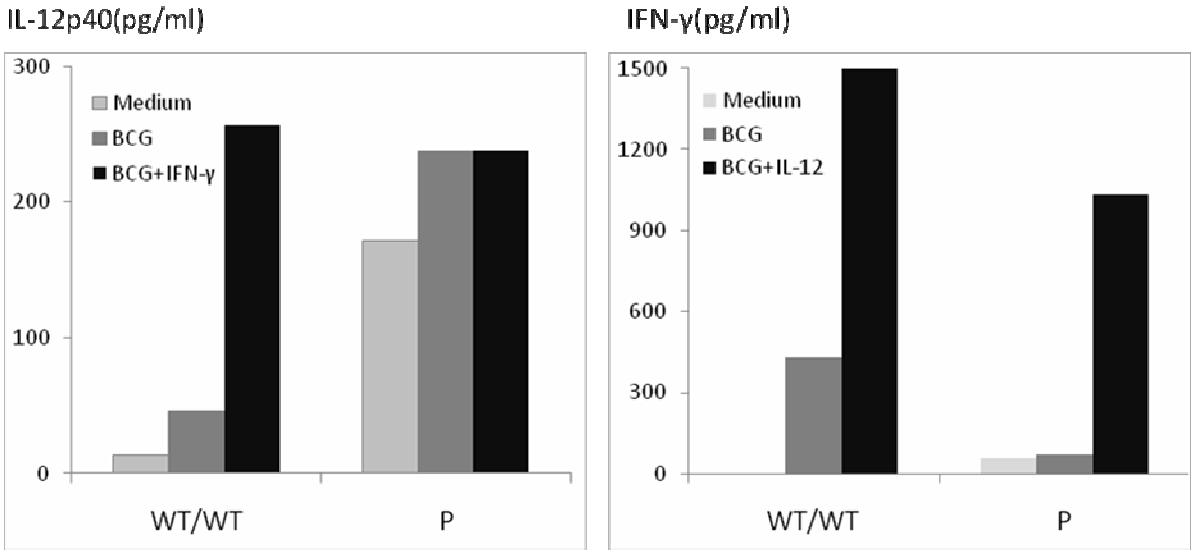
Supplementary figure 5:

^{125}I-IFN-γ binding was carried out on WT/WT, I87T/I87T, 818del4/WT, the patient P and 131delC/131delC EBV-B cells. Relative binding corresponds to the ratio of each binding value to the maximum binding value.

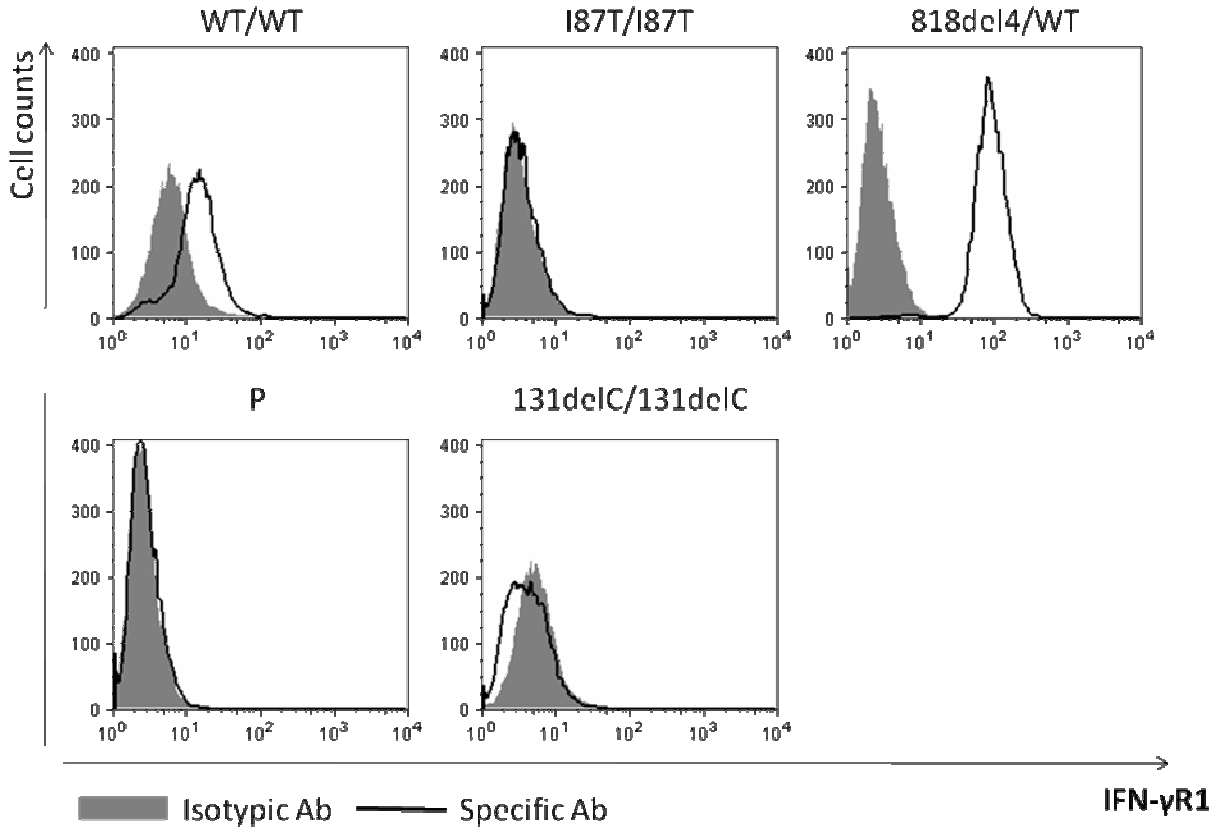
Supplementary figure 6:

Proteins precipitated by C20 were subjected to PNGase F treatment, followed by electrophoresis. Transfection with a mock plasmid (Lane 1), a wild-type *IFNGR1* plasmid (Lane 2); an ATG mutated to AAG *IFNGR1* plasmid (Lane 3); a plasmid in which the first 10 codons were deleted (Lane4); a plasmid in which the first 13 were deleted (Lane 5) or a plasmid in which the first 16 codons were deleted (Lane6) did not impair the residual IFN-γR1 expression. Deletion of the first 19 codons abolished the residual expression (Lane7).

Supplementary Figure 1



Supplementary figure 2



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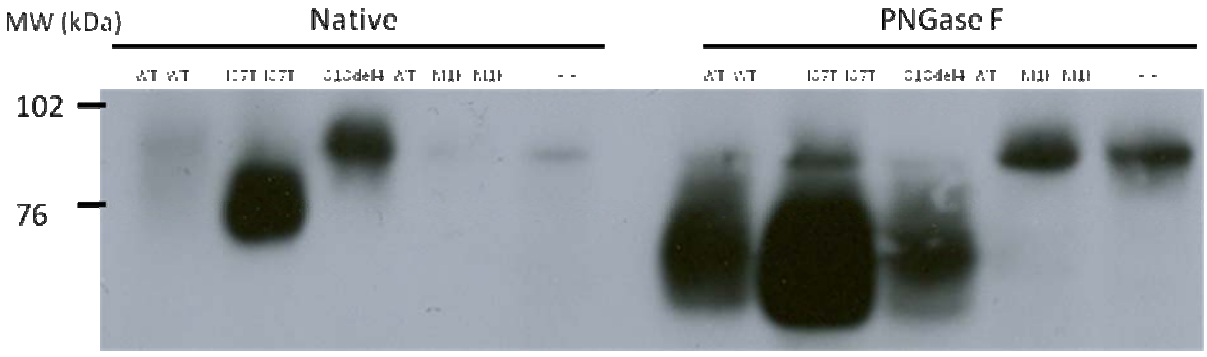

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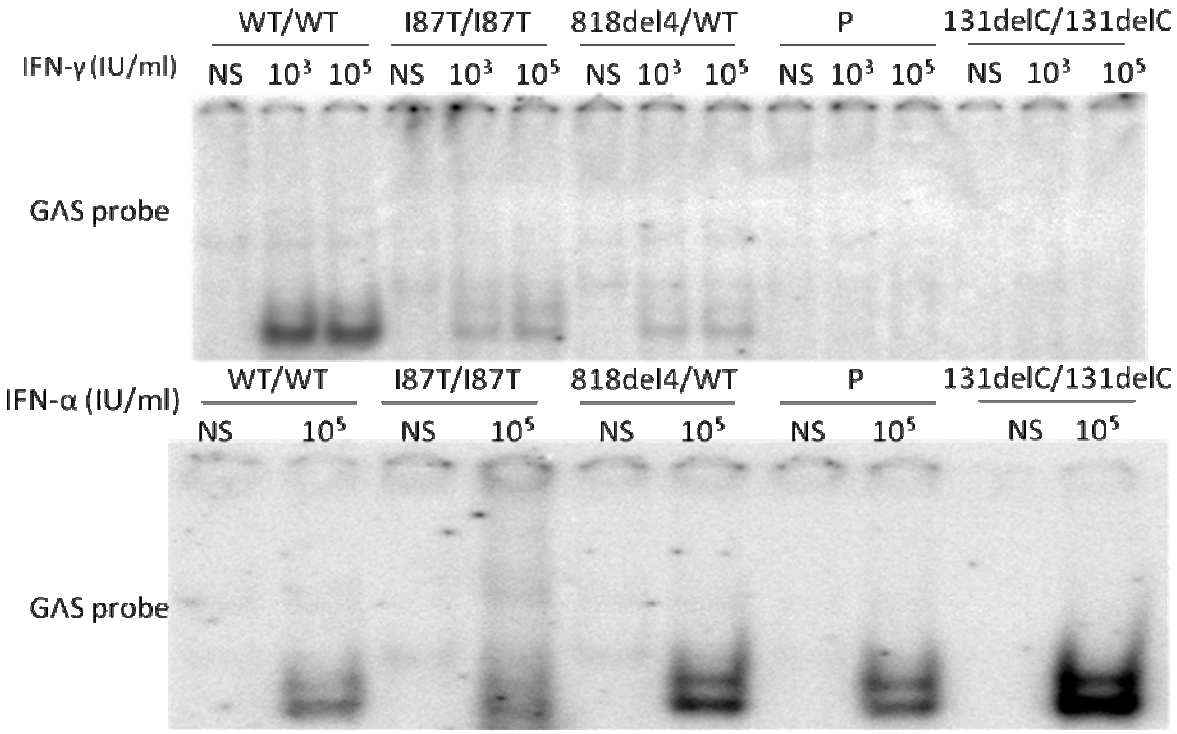
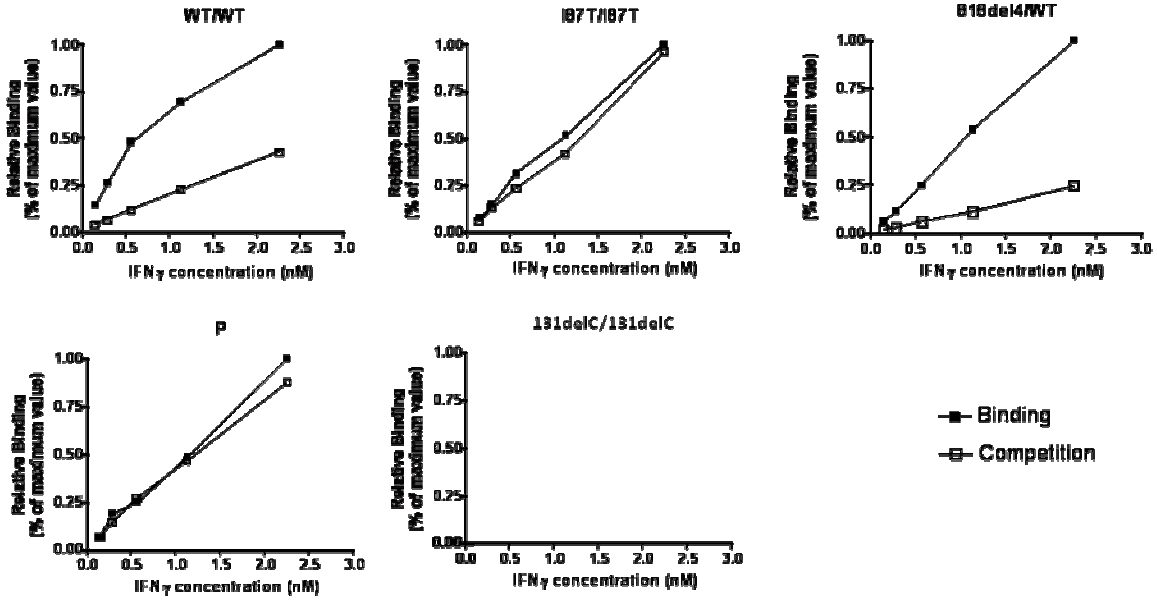


Supplementary figure 5



Supplementary Figure 6