```
bij_iff_is_1_1_corr  THM

⊢  Bij(A; B; f) ⟺ f is 1-1 corr  by UnivCD
|
1. A : Type
2. B : Type
3. f : A→B
⊢  Bij(A; B; f) ⟺ f is 1-1 corr  by Def of f is 1-1 corr
|
|\
| 4. Bij(A; B; f)
| ⊢  ∃g:(B→A). InvFuns(A;B;f;g)
|   by BackThru:
|      Thm*  ∀f:(A→B). Bij(A; B; f) ⇒ (∃g:(B→A). InvFuns(A;B;f;g))
|      {bij_imp_exists_inv2}
|
.\
. 4. ∃g:(B→A). InvFuns(A;B;f;g)
. ⊢  Bij(A; B; f)  by Analyze4
. |
. 4. g : B→A
. 5. InvFuns(A;B;f;g)
. ⊢  Bij(A; B; f)
.   by UseSubst:[g] on
.      BackThru:
.      Thm*  InvFuns(A;B;f;g) ⇒ Bij(A; B; f)
.      {fun_with_inv2_is_bij}
END
```