

## **Appendix D — DB Log**

### **Purpose**

This appendix documents how nutrition values (kcal/protein/fat/carbs) in meal\_advisor\_food\_db\_v1.csv were standardized and traced. At the prototype stage, we prioritize consistency, comparability, and traceability over clinical-grade precision.

### **A. Serving Standardization Policy**

- 1) All nutrition values are stored as representative “guide values” per 1 serving.
- 2) serving\_desc explicitly states the unit of 1 serving (e.g., 1 bowl, 1 plate, 1 roll, 100g, 200g).
- 3) Since values can vary by brand/recipe/portion, the system discloses that values are estimates for guidance.

### **B. Source Classification (source\_used)**

Each entry is assigned exactly one primary source type, logged with access\_date in Appendix E1.

#### **1) public\_food\_db**

- Examples: MFDS Food Safety Korea Nutrition DB, RDA Korean Standard Food Composition DB, USDA FoodData Central
- Used when a clear standard entry exists.

#### **2) manufacturer\_label**

- Used for packaged foods / branded items where nutrition is defined by the product label.
- Notes should indicate the product/brand label basis.

#### **3) recipe\_average**

- Used when recipe variance is large or a direct standard match is not appropriate.
- Notes should record evidence such as “avg of N recipes” or “high variance”.

### **C. Matching Rules (consistency-first)**

- 1) Prefer a direct match in public databases when available.
- 2) Align portion to serving\_desc when database serving units differ.
- 3) If an exact match is not possible, select the closest match and record the rationale in notes.
- 4) Integrity rule: values in Appendix E1 must match the main DB (meal\_advisor\_food\_db\_v1.csv) exactly.

### **D. Disclosures**

- Nutrition values are not for medical diagnosis; they are decision-support guide values.
- Real meals may differ due to recipe/brand/portion differences.
- Allergen tags follow a conservative policy and may over-warn to prioritize safety.

## Appendix\_D1: Food DB Provenance Log (Sample 16)

i d	nam e_en	servi ng_d esc	k c a l	pr ote in_ g	f a t — g	c a r b s — g	source_used	acc ess _dat e	notes	evidenc e_ref
1	Tteok bokki	1 plate	3 5 0	6	8	6 5	FoodSafetyKorea_MFD S	202 5-11 -29	search_term="떡볶이", matched_entry="떡볶이(일반)"	E2_MFD S_01.png
2	Kimc hi Fried Rice	1 bowl	4 8 0	12	1 5	6 5	RDA_Korean_Standard _Food_Composition	202 5-11 -29	search_term="김치볶음밥", average of 3 recipes	E2_RDA _02.png
3	Gimb ap	1 roll	3 5 0	10	9	5 0	FoodSafetyKorea_MFD S	202 5-11 -29	matched_entry="원조김밥", portion fixed	E2_MFD S_03.png
4	Beef Bone Soup	1 bowl	4 2 0	18	1 5	2 0	RDA_Korean_Standard _Food_Composition	202 5-11 -29	search_term="사골곰탕", matched_entry="설렁탕"	E2_RDA _04.png
5	Bibim bap	1 bowl	5 5 0	18	1 4	8 5	FoodSafetyKorea_MFD S	202 5-11 -29	matched_entry="비빔밥(전주식)", adjusted	E2_MFD S_05.png
1 3	Ram yeon	1 bowl	5 0 0	10	1 6	7 0	Manufacturer_Label	202 5-11 -29	Instant ramen, portion adjusted to 1 bowl	E2_Labe l_13.png
2 5	Doen jang-j jigae	1 bowl	1 5 0	10	6	1 5	RDA_Korean_Standard _Food_Composition	202 5-11 -29	search_term="된장찌개", matched_entry="채소된장찌개"	E2_RDA _25.png

4 5	Hamburg er	1 unit	5 5 0	25	2 8	4 5	USDA_FoodData_Central	202 5-11 -29	search_term="Hamburger", matched_entry="Fast Food"	E2_USD A_45.png
4 6	Cheesebur ger	1 unit	6 2 0	28	3 5	4 8	USDA_FoodData_Central	202 5-11 -29	matched_entry="Cheeseburger, single patty"	E2_USD A_46.png
5 0	Pepperoni Pizza	2 slices	6 0 0	24	2 6	6 5	USDA_FoodData_Central	202 5-11 -29	closest match: pepperoni pizza, 14-inch	E2_USD A_50.png
6 2	Pho	1 bowl	4 5 0	25	8	6 5	USDA_FoodData_Central	202 5-11 -29	search_term="Beef Pho", matched_entry="Vietnamese"	E2_USD A_62.png
1 0 2	Croissant	1 piece	2 7 0	5	1 5	2 8	Recipe_Average	202 5-11 -29	matched_entry="Butter Croissant", medium size	E2_Re ci pe_102. png
1 5 0	Dak-galbi	1 portio n	5 5 0	40	2 5	3 5	FoodSafetyKorea_MFD S	202 5-11 -29	search_term="닭갈비", matched_entry="춘천닭갈비"	E2_MFD S_150.p ng
2 8 5	Brownie	1 piece	2 5 0	3	1 2	3 5	USDA_FoodData_Central	202 5-11 -29	matched_entry="Chocolate Brownies, commercial"	E2_USD A_285.p ng
2 8 6	Macaron (Che wy Butte r Cook ie Style )	1 piece	1 0 0	2	5	1 2	Recipe_Average	202 5-11 -29	matched_entry="French Macaron", per piece	E2_Re ci pe_286. png

2 9 0	Crep e	1 piece	2 2 0	6	9	3 0	USDA_FoodData_Cent ral	202 5-11 -29	search_term="C repe", matched_entry= "Plain"	E2_USD A_290.p ng
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## Appendix\_D2 - Reference Pages

- 식품영양성분 데이터베이스. (n.d.). <https://various.foodsafetykorea.go.kr/nutrient/>

The screenshot shows the homepage of the 'Food Safety Nutrient Database' (식품영양성분 데이터베이스). At the top, there's a search bar with the placeholder '영양정보가 궁금한 식품명을 검색해보세요.' (Search for food names you're curious about) and a magnifying glass icon. Below the search bar, there's a banner with illustrations of food and a message: '매분기마다 업데이트돼요.' (Updated every minute). The main content area has a dark blue header titled '인기 키워드' (Popular Keywords). It lists four keywords with small icons: 1. 달걀(달걀국, 달걀말이, 달걀분침(달걀후라이)) 2. 닭고기(닭 가슴살, 닭고기 육개장, 생 닭가슴살) 3. 돼지고기(돼지고기 김치찌개, 돼지고기(제육)덮밥, 돼지고기볶음(제육볶음)) 4. 커피(커피가루(무설탕)). There are also buttons for '전체' (All) and '월간' (Monthly). At the bottom of the page, there are navigation icons for back, forward, and search, along with a link to '공지사항 더보기' (View more notices).

- 농식품 올바로 - 국가표준식품성분표 검색. (n.d.).

<https://koreanfood.rda.go.kr/kfi/fct/fctFoodSrch/list>

국립식품·  
국립식품과학원

농식품을바로

English site

검색하기

국가표준식품성분표 검색

총 글수 : 3330건, 페이지수 : 1/333

- USDA FoodData Central. (n.d.). <https://fdc.nal.usda.gov/>

An official website of the United States government [Here's how you know](#)

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## FoodData Central

USDA's comprehensive source of food composition data with multiple distinct data types

Search all foods in all data types

**Foundation Foods**  
Analytical data/metadata on commodity and minimally processed food samples.  
Source: USDA  
Updates: Twice annually - April & October  
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**SR Legacy**  
Historical data derived from analyses, calculations, and published literature.  
Source: USDA  
Updates: Final update was in 2018  
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